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# ALPINE LAKES

## **Draft ENVIRONMENTAL STATEMENT**

on a recommended

## **LAND USE PLAN For The ALPINE LAKES AREA**

**of the  
State of Washington**

**July 1973**

**U. S. DEPARTMENT OF AGRICULTURE  
FOREST SERVICE**

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U.S. DEPARTMENT OF AGRICULTURE  
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D R A F T

ENVIRONMENTAL STATEMENT

on a recommended land use plan for the  
ALPINE LAKES AREA  
in the State of Washington

(2)

Prepared in Accordance with Sec 102(2) (C)

of

The National Environmental Policy Act of 1969.

(1)

July 1973

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USDA FOREST SERVICE ENVIRONMENTAL STATEMENT

The Alpine Lakes Land Use Plan

Prepared in Accordance With  
Section 102 (2) (c) of P.L. 91-190

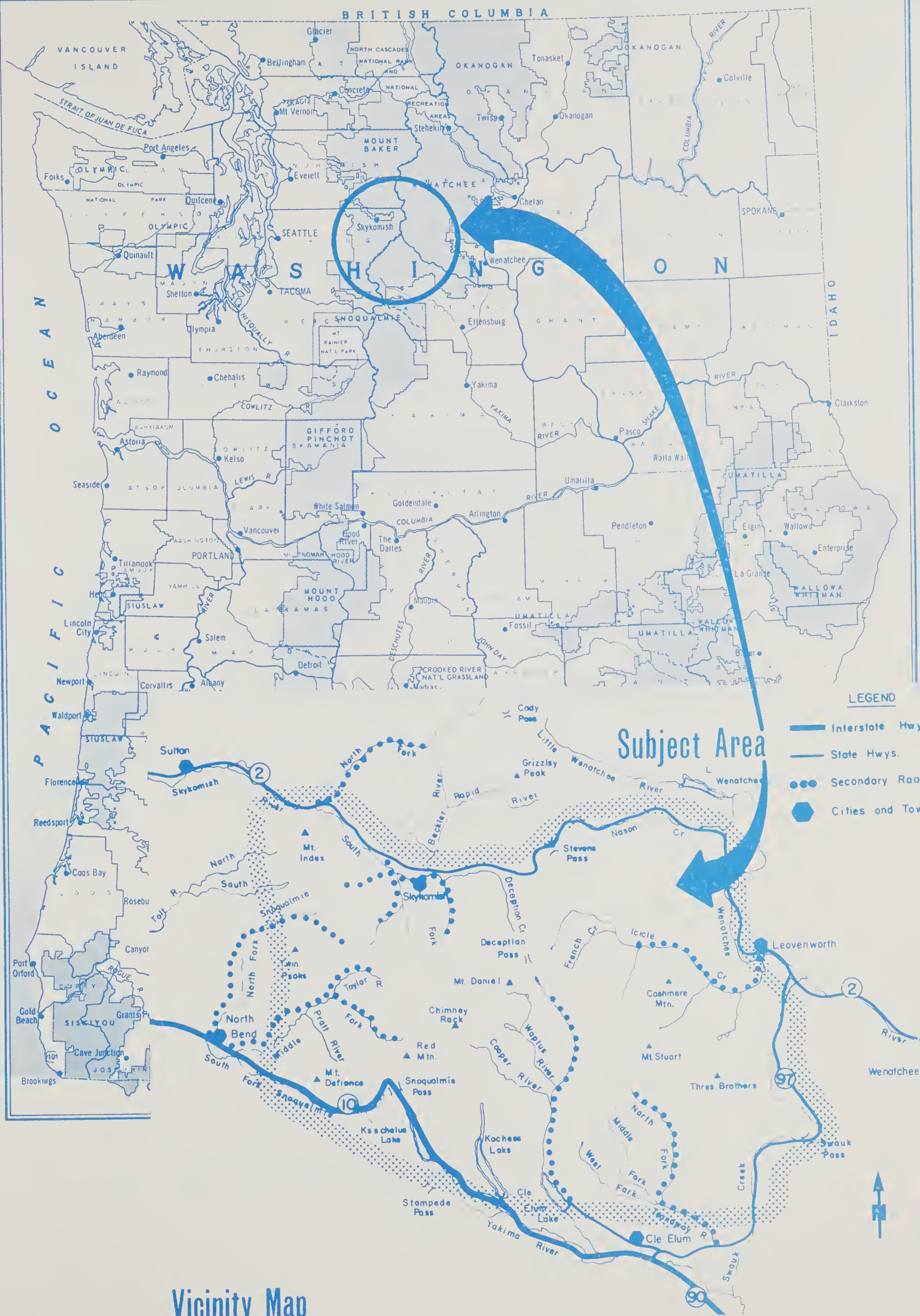
SUMMARY SHEET

- I. DRAFT
- II. FOREST SERVICE
- III. ADMINISTRATIVE
- IV. DESCRIPTION OF ACTION - To recommend a plan for the management of lands including Wilderness in the Alpine Lakes Area on portions of the Snoqualmie and Wenatchee National Forests in the State of Washington, Counties of Chelan, King, Kittitas, and Snohomish.
- V. ENVIRONMENTAL IMPACTS AND ADVERSE ENVIRONMENTAL EFFECTS  
Impacts upon the environment will tend to be beneficial with respect to the social and economic needs of society. Adverse impacts may be expected in the areas of recreation use, and the local economies. Reductions in the immediate availability of some resource commodities and increased restrictions upon the recreating public will be adverse effects which cannot be avoided.
- VI. ALTERNATIVES
  - A. An Alpine Lakes Wilderness of 178,000 acres and an Enchantment Wilderness of 45,000 acres.
  - B. An Alpine Lakes Wilderness of 285,000 acres.
  - C. An Alpine Lakes Wilderness of 182,000 acres.
  - D. An Alpine Lakes Wilderness of 178,000 acres, an Enchantment Wilderness of 45,000 acres, and an area of 231,000 acres managed for key recreational use. Remaining study area lands to be managed for total resource use.

- E. An area of 924,000 acres managed for key recreational use with two Wildernesses totaling 223,000 acres in the core.
- F. An area of 926,000 acres managed as a National Recreation Area with one Wilderness totaling 365,000 acres. Legislation has been proposed by the Alpine Lakes Protection Society for this alternative.
- G. An area of 924,000 acres managed for key recreational use with one Wilderness totaling 285,000 acres in the core.
- H. No change in present management direction. This alternative represents continued management under present laws and regulations.

VII. DATE STATEMENT MADE AVAILABLE TO CEQ AND THE PUBLIC.

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## I. INTRODUCTION.

### A. Proposed Action.

The Forest Service, U.S. Department of Agriculture, proposes a plan for the management of portions of the Snoqualmie and Wenatchee National Forests in Chelan, King, Kittitas, and Snohomish Counties, State of Washington. It further proposes that a part of this land be classified as a Wilderness and managed under the provisions of the Wilderness Act.\*

Those lands identified in the document entitled "Roadless and Undeveloped Areas (Draft Environmental Statement)" dated January 1973 which are included in this proposal will be managed as an integral part of the entire area and under the rules and regulations adopted for it. The Grizzly Peak roadless area of 55,900 acres, will remain in roadless area status until a more intensive study is made and final recommendations proposed for future classification and/or management.

Six undeveloped areas contiguous to the proposed Wilderness were studied. They are listed below as they appeared in the draft environmental statement on roadless and undeveloped areas prepared by the Forest Service in January 1973 for selection of proposed new study areas.

No.	Name	Gross Acres			
41	Alpine Lakes	267,000	(New Study Area)		
D04	Mt. Index	18,890	"	"	"
D05	Miller River	38,000	"	"	"
D07	Lake Dorothy	6,040	"	"	"
D08	Mt. Thompson-Rampart	2,850	"	"	"
H08	Kitan	69,100	"	"	"

\*See page 49, Alternative G, and the attached "Alpine Lakes Management Unit Direction and Wilderness Proposal"

Portions of two other undeveloped areas are within the boundaries of the study area. They are:

No.	Name	Gross Acres
H07	Nason Ridge	14,400
H09	Mission Creek	23,800

The remainder of these units will be studied prior to June 1974.

The Limited Area designation for the Alpine Lakes imposed by the Regional Forester in 1946, will be removed when this issue is resolved. That portion north of Stevens Pass will also be removed as it is within the Grizzly Peak roadless area and will require detailed planning and public involvement. An environmental statement will be prepared on this area by June 1974.

## B. History.

### 1. Past Studies and Proposals.

With the Regional Forester's designation of a 256,000 acre Alpine Lakes Limited Area in 1946, the scene was set for the process which would eventually result in this proposal. The following is a chronology of significant steps along the way:

1963 - Conservation groups proposed an Alpine Lakes Wilderness totaling 334,000 acres which would replace the Limited Area and include peripheral areas.

1965 - The North Cascades Study Team recommended two areas be included in the Wilderness system, The Alpine Lakes (162,549 acres) and the Enchantment (32,142 acres).

1967 - A directive from the Chief of the Forest Service to all field units initiated an identification of new study areas within the National Forests.

1968 - A preliminary report for the Alpine Lakes and Enchantment Wilderness was developed by the Snoqualmie and Wenatchee National Forests.

1970 - A conservation group formed in 1968 called the Alpine Lakes Protection Society proposed a 926,400 acre National Recreation Area with a 364,480 acre Wilderness core as an integral part.

1971 - The Chief of the Forest Service responded to a request from the Washington congressional delegation with a commitment to proceed with a study and development of the Forest Service proposal for Wilderness classification.

1972 - In July, a Forest Service study team was assembled and given the above task with a May 1973 target date for completion.

1972 - The Central Washington Cascades Study Team representing the timber industry and major landowners, completed an extensive study of the area and provided recommendations to the Forest Service which included two units of Wilderness totaling 223,580 acres.

1972 - The Northwest Chapter of the Sierra Club proposed an Alpine Lakes Wilderness of 533,000 acres with adjacent lands recommended for primary recreation use.

1972 - By request of the North Cascades Conservation Council, Congressman Pelley introduced a bill to designate a 580,000 acre Alpine Lakes Wilderness thus initiating legislative history for possible classification of a portion of the area.

1973 - The Forest Service announced the preliminary results of the roadless area inventory. The Alpine Lakes was included as a proposed new Wilderness Study Area.

1973 - A series of public meetings were held to present three alternatives proposed by the Forest Service for the Alpine Lakes. Over 1,900 persons attended. Written responses were solicited to be received on or before March 1. Written inputs representing 5,380 persons were received and analyzed.

## 2. This Study.

This proposal is based upon a study which encompassed 1,200,000 acres of land from the Cle Elum ridge north to the Glacier Peak



Wilderness and from Leavenworth west to North Bend.

The specific objectives of this study in order of priority were:

1. Develop a Forest Service proposal for the classification of lands in the Alpine Lakes area as Wilderness. This may be two separate units e.g. Alpine Lakes and Enchantment Wildernesses or a single unit that includes both areas.
2. Develop management alternatives and recommendations for lands adjacent to the Wilderness proposal(s). These alternatives may include other classifications such as National Recreation Area, Scenic Area, Botanical Area, Special Interest Zone, etc.
3. Develop recommendations for the portions of the present Alpine Lakes Limited Area not included in the above alternatives. The primary area of consideration in this objective is the portion of the Limited Area north of the Stevens Pass Highway.

When the field data had been gathered, it became obvious that the area specifically mentioned in objective number 3 was too complex for the team to be able to make recommendations within the time constraints imposed. The result is to plan further study of this tract before deciding the management direction for the land.

This statement speaks to those lands outlined in objective 1 which are proposed for Wilderness and those units in objective 2 which are roadless and undeveloped. Data collected by the study team on the lands which have been substantially developed for intensive recreation, logging, water use, etc. will be used by future planning teams to determine more specific management directions.

This approach is based upon the hypothesis that all lands which have unique natural characteristics and are essentially undeveloped should be studied for classification and/or future management direction first. These lands then will influence the decisions to be made on surrounding tracts. Land managers will have the framework within which to prepare plans for all lands which will decrease developmental influences toward the core areas.

### 3. The Alpine Lakes.

The name Alpine Lakes takes its origin from the over 700 small mountain lakes nestled among the high rock peaks and timbered valleys of the region. It is significant that the National Forests within which the Alpine Lakes are situated were both named after Indian terms descriptive of the country. Wenatchee is a term which means "A good place" and Snoqualmie is from the Indian word "Sdoh - kwahlb - bbuh" which means "moon people" from the legend that people from the moon had come to earth to live in this beautiful setting.

The first white men who traveled into this rugged Wilderness more than 1-1/2 centuries ago were undoubtedly trappers and hunters. They found, in addition to an abundance of game, snow-capped mountain peaks, sparkling streams, and dense forested slopes.

Sometime prior to 1850, gold was discovered and prospectors became attracted to the area in large numbers. Small mining settlements began to spring up with such names as Blewett and Liberty.

Mining activities contributed considerably to the economy of the small communities in the early days. But in the late 1800's timber harvesting began to take place and, in much later years, was to become the major economic influence in the region.

The federal lands originally became a part of the public domain in 1846 when the United States established title to the Oregon Territory. In 1893 and 1897, Forest Reserves were designated as provided for in the Act of March 3, 1891. After the establishment of Mount Rainier National Park in 1899, these Reserve lands were to be divided into National Forests, parts of two comprising the lands in this study. They are the Wenatchee and Snoqualmie National Forests both of which were established in 1908.

Federal lands now comprise 29.4 percent of the 43 million acres in the State of Washington. Four Wildernesses and three National Parks are included in these federal lands totaling just over 3 million acres. The nearest of these units to the proposed Alpine Lakes Wilderness is Mount Rainier National Park, 33 miles south, and Glacier Peak Wilderness, 18 miles to the north.

Recreation plans for the National Forests in Washington were prepared between 1925 and 1933, but special designation was not given to any of the Alpine Lakes lands until the 1946 limited area classification.

Commercial timber cutting on a large scale first occurred in the 1920's. At that time most access was by railroad with logging methods limited to what timber could be reached from the tracks. West side valleys such as the Middle Fork of the Snoqualmie and Pratt Rivers show evidence of this practice today. By the middle of the 1930's railroads were giving way to the truck as the major method of transporting logs. In the old growth Douglas-fir types of the western slopes, the practice of clear-cutting became the accepted harvest method on both private and federal lands with cutover sizes usually at least 30 acres but, in many cases, much larger. Opposition to this system and its associated road access needs began to spawn opposition by a considerable segment of the public who would gain support by such national issues as the Bitterroot and Monongahela Controversies.

As the old-growth timber on private lands adjoining the area became increasingly cut over, the dependency of the timber industry on National Forests increased greatly. Thus the sustained-yield potential of National Forest timber became a major factor in the Forest Products Industry of the State.

As increasing penetrations were made into the Alpine Lakes country to harvest the resources, concern grew over the impact such intrusions would impose upon the quality of the scenic high country lands. These concerns were reflected throughout the 1960's as various groups initiated formal studies and made proposals for the future classification and management of these lands. The first legislation was introduced in Congress on October 17, 1972.

The pace and intensity of these recent events prompted the Forest Service to initiate an intensive study of the Alpine Lakes. In July 1972 a three-man team was established to accomplish this task.



## II. DESCRIPTION OF THE AREA.

### A. LAND CHARACTERISTICS.

#### 1. Location.

The Alpine Lakes area is situated in the Cascade Mountain Range of Central Washington between Seattle and Wenatchee. The lands which are so named, comprise a major portion of the Snoqualmie and Wenatchee National Forests and include portions of Chelan, King, Kittitas, and Snohomish Counties. They are bounded by two major Cascade Mountain passes, Stevens on the north and Snoqualmie on the south.

Access is provided by three major highways which make it possible for almost two million persons to reach the portals of the Alpine Lakes within one hour.

#### 2. Climate.

The great mountain barrier which is the Cascade Range provides a contrasting weather pattern. Moist maritime air coming off the Pacific Ocean is uplifted as it moves toward the east causing the release of increasing amounts of moisture over the higher elevations. The western lowlands receive an average of 35 inches of rain annually and are characterized by mild winters and cool summers. Along the summit of the Cascades within the core of the Alpine Lakes, 30 foot snow depths are not uncommon while the country around Lake Dorothy receives as much as 180 inches of rain per year.

As the air moves to the east toward the Columbia River Basin, moisture drops off markedly with only 25 inches of rain annually at Leavenworth and an average of 9 inches at Wenatchee. In this country nearly 75 percent of the precipitation is in the form of snow. The average mean temperature is about the same on both east and west side lands, but the variation between high and low is pronounced. The east side is warmer in the summer months with temperatures often in the 90°'s while 0° readings are not uncommon during the winter.

### 3. Physiography.

The Alpine Lakes country is one of the few large masses of land within the Cascade Range not dominated by a volcanic peak. The largest formation is Mt. Stuart, a giant batholith which rises to an elevation of 9,415 feet. It is located 19 miles east of the Cascade Crest. Prominent peaks along the crest are Mt. Daniel (7,899 feet), Mt. Hinman (7,494 feet), Chimney Rock (7,727 feet), and Lemah Mountain (7,512 feet). Impressive lower peaks include Mt. Index (5,979 feet), Russian Butte (5,123 feet), and Granite Mountain (5,679 feet), on the west side while the east side lands exhibit such imposing formations as Big Jim Mountain (7,762 feet), Ingalls Peak (7,662 feet), and Cashmere Mountain (8,501 feet).

It is characteristic of the topography that one peak seems to meld into another throughout the area with no one high point dominant. Mountains appearing to be significant when viewed from one side become no more than another high point in the land mass when viewed from the other. Even the towering Mt. Stuart is not noticeable as a major mountain peak when viewed from many locations.

In contrast to these rugged and often sheer rock outcrops, the valley bottoms tend to be broad and gently sloping, the result of receding glaciers 12,000 years ago. Keechelus and Kachess Lakes, now reservoirs providing irrigation water to the Yakima Valley, were formed originally by the terminal moraines of these glaciers.

Four major river drainages originate in the Alpine Lakes. The Snoqualmie and Skykomish Rivers flow westerly to a confluence with the Snohomish River which flows into Puget Sound at Everett. The Wenatchee and Yakima Rivers flow easterly to the Columbia River.

The differences in elevation where these rivers pass the boundaries of the Alpine Lakes and the adjacent ridge tops is often striking. At Leavenworth where Icicle Creek flows into the Wenatchee River the elevation is 1,175 feet. Icicle Ridge one-half mile away is 2,800 feet. At Index along the Skykomish River the elevation is 532 feet. The summit of Mt. Index just three miles to the south is 5,979 feet.

#### 4. Ecosystems.

Variety and contrast are reflected in the fact that five biotic or life zones out of seven recognized by ecologists are represented.

In the west, the upper fringes of the coastal Forest Zone are evidenced by the dense stands of Douglas fir, western hemlock, western red cedar, and grand fir, along the foothills. Red alder and vine maple thickets are prevalent while the forest understory most often comprises salal, hazel, salmon-berry, and Oregon grape. Moist areas normally support devils club. Soils tend to be quite deep and often rather poorly drained. The upper elevation of this zone is about 3,000 feet.

The Mountain Forest (Canadian) Zone is present on both slopes of the Cascade Mountains from 3,000 feet to approximately 5,000 feet. Herein lie the principal timber producing lands of the Alpine Lakes country. Towering stands of Douglas fir, grand fir, and western hemlock grow at the lower elevations blending with Pacific silver fir, Englemann spruce, nobel fir, and mountain hemlock on higher lands. Western larch is scattered throughout the eastern portion of the zone and pure stands of Lodgepole pine grow on some sites. Aspen, sitka alder, and Douglas maple are prominent hardwood species while salal, Oregon grape, kinnikinnick, and twin-flower provide understory foliage in the fir stands. Prevalent species growing in forest openings include red alpine blueberry, trailing blackberry, sticky currant, elderberry, and sitka mountain ash. Soil characteristics vary greatly throughout this zone but are generally deep and well drained. The capability of the soil to produce timber is usually represented by a site index of III or IV in a scale of I (outstanding) to V (poor).

At elevations between 5,000 and 7,000 feet, the sub-alpine or Hudsonian life zone is represented. This zone is characterized by open and scattered stands of Alpine fir, dwarf juniper, and Alpine larch. Scenic qualities of this zone are enhanced by the many mountain meadows with wild flowers such as avalanche lily, indian paintbrush, mountain bluebell, and spreading phlox. Tree and shrub vegetation is often matted and deformed because of the



severe winds and harsh growing conditions at these altitudes. Summers are short and snow depths range to 20 feet. Soils tend to be shallow and rocky with frost common each month of the year. Growth potential for timber production is very limited.

The timber line throughout the Alpine Lakes is generally between 5,000 feet and 7,500 feet. Lands above this imaginary line constitute the Alpine Zone. Rugged beauty characterizes this zone where huge rock peaks provide a back-drop for picturesque mountain meadows and azure lakes. Isolated clumps of Alpine fir and larch struggle for survival in this harsh climate where snow often stays all summer long and numerous small glaciers still exist. Many small and delicate plants dot the glades such as red heather, forget-me-not, snow lily, columbine, and lupine. Soils are very thin to nonexistent. Much of this zone is extremely fragile with very slow recuperative characteristics once damage is done.

On the extreme easterly fringe of this country lies the yellow pine forest zone. As the name implies, it is a zone dominated by open stand of yellow (Ponderosa) pine often pure but also in combination with Douglas fir and its associated species. Flowers common to this zone include balsamroot, fleabane, hawkweed, mariposa lily, and the relatively rare "Lewisia tweedii" or rock lily. Soils tend to be deep and well drained. Timber site index is usually rated IV in this zone where cold winters and hot dry summers prevail.

## B. SOCIO-ECONOMIC INFLUENCES.

### 1. Population.

In 1970 the population of Washington State was 3,409,169. Of this number, 50 percent lived within 60 road miles of the Alpine Lakes. Most persons reside within the Seattle-Everett complex which ranks 17th among metropolitan population centers in the nation.

Between 1960 and 1970 the population of the State increased 19.5 percent while that portion within a one hour drive of the study area increased 26.0 percent. This compares with a national increase of 13.3 percent over the same period.



Estimates made in 1971 by the Pacific Northwest River Basins Commission indicate a regional increase of 115 percent in population between 1965 and 2020. The national population is expected to increase by 105 percent over the same period.

In the same study, total income increased from \$4.6 billion in 1940 to \$13 billion in 1962 as measured in constant 1958 dollars. This increase of 180 percent over the period compares with a national increase of 144 percent, the difference being due largely to more rapid population growth. Total personal income is expected to increase 4.4 percent annually during the projection period to about \$154.4 billion in 2020. This is slightly greater than the national growth rate.

In constant 1958 dollars, per capita income in the region increased from \$1,348 in 1940 to \$2,325 in 1962, comparable to the national average. By 2020 the per capita income is expected to rise to \$12,200, an annual growth rate of about 2.9 percent from 1965.

## 2. Employment.

Total employment in the Columbia-North Pacific region increased from 1.2 million in 1940 to about 2.0 million in 1960. It is expected to reach 5.1 million by 2020. Well over half this employment, like population, will tend to be concentrated west of the Cascade mountains.

Although the employment figures indicate an upward trend, the industries which support this employment vary greatly in their capacities to support future jobs. As an example, manufacturing employment increased 3.4 percent annually from 1940 to 1960 while agriculture decreased 30 percent and mining decreased 55 percent over the same period.

The manufacture of forest products is the largest component of the manufacturing industry. In 1965 wood products employment (including pulp and paper) amounted to 165,789 workers. This was about 35 percent of the total manufacturing employment. But by 2,020 this work force is expected to decline by 37 percent to a predicted figure of 104,005. Increased utilization, and mechanization are major factors contributing to this decrease in job opportunities.

In the counties where wood products from the Alpine Lakes area are manufactured, 17,324 workers were involved in that process in 1970. This figure represents about 12 percent of all wood products workers in the region that year. Assuming that trends developed for the region as a whole are representative of the more localized area, 10,914 workers could be expected to be involved in the manufacture of wood products in these counties by 2020.

In 1970, the harvest from National Forest land within the Alpine Lakes Study area supported a timber based employment of 552 jobs or just over one-third of all workers involved in wood processing in the market area. With no marked change in land use patterns this figure could be expected to drop to 348 workers by 2020.

But all trends in timber related work do not point downward. Increased intensity and emphasis upon forest management work indicates a rise in jobs available in this field from 17,500 in the region in 1962 to 46,600 persons by 2020.

Forest related payrolls will also increase in the future although a change in distribution will occur. In 1962, all payrolls amounted to \$945 million with 73 percent of them occurring in the lumber and wood products industries. Pulp and paper products employees received 18 percent and forest managers 9 percent. In 2020 the total payroll will amount to about \$2.3 billion (1962 dollars) with lumber and wood products employees receiving only 34 percent and pulp and paper workers getting 23 percent. Forest management payrolls will account for the remaining 43 percent. But the net result, all things considered will be an overall reduction in timber based employment over the next 50 years.

Although mining activity is restricted to the exploration stage at this time, indications of economic deposits exist and production can be expected to increase in the future. However, employment in this field is expected to remain rather static despite increased production costs.

The growth of industries involved in the manufacture of nonresource oriented items is expected to be about one-third greater than the national average between 1960 and 2020. In the Pacific Northwest it will double. The major influence on this expansion will be from the Boeing Company of Seattle which produces close to 65

percent of all commercial jet aircraft in the world. Although it has experienced major fluctuations in employment in recent years, attempts toward more diversification are proving successful and the company can be expected to retain its competitive position in a world market expected to quadruple by 1980.

With the increase in population, the increase in personal and business services is expected to increase proportionately. And the onset of shorter working hours and higher pay will cause a considerable stimulus in the field of recreation, particularly in the out-of-doors. This in turn will spawn an increase in developments such as motels and restaurants, automobile services, outdoor equipment, and many other associated services.

### 3. Transportation.

The opening of transportation routes through the Cascade Mountains was a major undertaking as exemplified by the 7.8 mile long Stevens Pass railroad tunnel completed in 1929, the longest such tunnel in the Western Hemisphere. In the same area is the site of the Wellington disaster where, on March 1 1910, an avalanche swept a passenger train and a mail train from the track carrying 96 persons to their death.

At Snoqualmie Pass, the remnants of the old wagon road constructed in 1868 may still be found.

Now Interstate Highway 90 over Snoqualmie Pass carries the third largest east-west traffic volume in the west with 12,400 vehicles per day recorded in 1971. U.S. Highway 2 through Stevens Pass and north-south Highway 97 over Swauk Pass average about 1,900 vehicles per day.

The economic importance of the transportation routes serving the Alpine Lakes is difficult to assess. Unlike other areas more distant from population centers, this land does not exhibit an attraction isolated from other influences. It is an integral part of the forest resource in the state and a land equal in appeal with attractions close by. Out of state travelers may be more familiar with such well known places as the Space Needle,



Puget Sound, or Mt. Rainier National Park and are likely to consider them the goal of a trip west. But their most likely route will take them through the scenic wonders of the Alpine Lakes and whether they stop or not, it will provide a lasting influence. An estimated 15,000,000 persons made this trip in 1972 with a probable 26 percent coming from outside the state.

In 1972, 930,000 persons stopped to engage in recreational pursuits in the Alpine Lakes area. Based upon an average length of stay of 2.5 days, and an average expenditure of \$10 each day, they spent \$23,350,000. With increased National recognition and predicted upward trends in outdoor recreation, this figure could be expected to be five times greater in the year 2020 based upon 1972 dollars.

#### 4. Local Communities.

The people of the small towns on the perimeter of the study reflect the feelings of all rural dwellers who live close to the land. They have a very provincial attitude toward it. The people of Leavenworth, (pop. 1,322), Cle Elum (pop. 1,725), and Skykomish (pop. 283) in particular, resent the fact that "outsiders" are attempting to dictate what should happen to "their" land. To some extent they feel that they have been deserted by the Forest Service with whom they have worked closely for many years and who now appears to them to be ignoring their desires to listen to the masses of urban dwellers from far away.

The local communities have found economic support in the timber industry for the past 50 years although Cle Elum was dependent more on coal mining until the late 1950's when the mines became too costly to operate. But trends are developing which are shifting the emphasis toward more public service facilities to accommodate the tourist traffic. The opening of the North Cascades Highway 70 miles north of Stevens Pass in 1972 created a scenic loop from Seattle with return over the Stevens Pass Highway through Leavenworth and Skykomish. Tourist impacts increased considerably along this route. Several years before, Leavenworth had already made the decision to make its community more attractive to the traveler by adopting a Bavarian motif for its buildings and creating an atmosphere of the Bavarian Alps. Cashmere followed suit a short time later by converting its downtown section into a Early American style.

Cle Elum and Roslyn (pop. 1,031) residents have an ideal opportunity to increase tourism by exploiting the coal mining history of these communities. The Chamber of Commerce uses this attraction now in their advertising campaign.

On the west side, North Bend (pop. 1,625) has been fighting hard to retain the I-90 route close to town so that it can continue to increase its considerable tourist trade. But the completion of the freeway to federal highway standards will decrease the commuting time to Seattle. North Bend seems more likely to enhance its economy by becoming another "bedroom" community for the megalopolis to the west.

Increased development pressures have caused the county commissioners of all four counties to place greater emphasis upon comprehensive land use planning. King County planners began rezoning the eastern portion of the county in 1972 and have completed an open space plan. Kittitas County published a broad comprehensive plan for all lands in 1971 and worked with King County and the Forest Service in the preparation of the Snoqualmie Pass Intensive Land Classification Study published in 1971 by the Forest Service.

Chelan County is currently studying lands between Leavenworth and Stevens Pass. In 1972 planners in this county finalized comprehensive plans for the entire area along the Wenatchee River from Leavenworth to Wenatchee.

Snohomish County planners are currently developing plans for assisting the State Inter-Agency Outdoor Recreation Commission in implementing a regional recreation development program for the Skykomish Valley - Stevens Pass corridor.

##### 5. Land Status.

Of the 919,057 acres included in the plan of management, 726,856 acres are National Forest lands. The remainder are mostly privately owned with the largest tracts held by Burlington Northern Corporation, Pack River Timber Company, and Weyerhaeuser, Inc.

These companies have emphasized timber production on their lands in the past. Although this practice is expected to continue on a major portion of the area, there is an increasing awareness that recreational values may produce more long term return per investment, particularly where large bodies of water or intensive winter sports use are factors. At least one company, Burlington Northern, is now involved in an intensive study to determine what the highest and best use of its individual holdings may be.

In 1968, negotiations began to exchange eleven sections of Burlington Northern land in Townships 22 and 23 North, Range 14 East for Forest Service lands to be determined. These lands, known as the Waptus Block, are located in the Upper Cle Elum River area. By letter dated November 16, 1971, the Company authorized the Forest Service to study these lands for possible inclusion in the Wilderness. On April 19, 1972, the Company strengthened its position by offering these eleven sections for exchange. At this writing, agreement has not been reached on Forest Service lands to be selected. In 1970, the Forest Service received an oral offer from Pack River Company to exchange or sell 29 sections of its ownership in Townships 23, 24, 25, and 26 North, Ranges 16 and 17 East (letter dated 8/21/70).

No formal request has ever been made and negotiations have not proceeded beyond that point although periodic discussions involving these lands, or portions thereof, continue.

There are 285,193 acres of land in the proposed Wilderness of which 2,091 acres do not have National Forest status. The Icicle Irrigation District owns 335.26 acres in three tracts in the Icicle Creek drainage, the U.S. Fish and Wildlife Service has 657.33 acres on one tract in the same area, and the remainder is in scattered patented mining claims. The Fish and Wildlife Service has expressed a desire to transfer its lands to the Forest Service.

Several blocks of land which are suitable for Wilderness but not available because of intermingled private ownership will be

managed as unroaded. If the Forest Service were successful in acquisition of these private lands about 82,148 acres could then be considered for addition to the proposed Wilderness.

The remaining non-federal ownerships are primarily used, or planned for intensive land development oriented toward outdoor recreation. The largest of these tracts is at Snoqualmie Pass, the proponents of which envision an incorporated city here in the near future.



## C. NATURAL RESOURCES.

This land contains an infinite variety of resources, both renewable and nonrenewable. Much of it is capable of sustaining a number of different uses upon a single acre while other units can support only a limited number. This is a description of the resources contained within the total study area.

### 1. Water.

The study area contains over 700 natural lakes and ponds with a water surface exceeding 6,000 acres. Glaciers or permanent snowfields occupy an additional 2,176 acres. Much of the watershed value lies in the fact that 47 percent of the land surface is above an elevation of 4,000 feet. This provides the capability for a reservoir of water stored until late into the summer when it is most needed in the lower valleys. In an average year, the heaviest snowpack occurs about April 1 at the higher elevations. On this date the snow accumulation is normally 55 to 60 percent of the annual precipitation received at 4,000 feet.

Headwaters of four rivers, the Skykomish, Snoqualmie, Wenatchee, and Yakima, are located within the Alpine Lakes. The table below illustrates the mean annual discharge of these rivers and the percentage of watershed above the measuring point which is included in this proposal.

<u>River</u>	<u>Point of Measure</u>	<u>Mean Annual Discharge (CFS)</u>	<u>Drainage Area (sq.mi.)</u>	<u>Percent Within Proposal</u>
Skykomish	Index	2385	355	67
Snoqualmie	Carnation	3714	603	40
Wenatchee	Peshastin	3010	1000	35
Yakima	Umtanum	2325	1594	28

The entire water yield from the eastern slopes is presently utilized for irrigation and domestic purposes while maintaining proper levels to support fish life. Water stored in the Keechelus, Kachess, and Cle Elum reservoirs totals 833,700 acre-feet and has contributed substantially to the agricultural growth of the Yakima Valley since the late 1920's

In 1965, Chelan County Public Utilities District No. 1 filed an application with the Federal Power Commission for four dams within the Wenatchee River watershed. Primarily for power production, the lakes created by these dams could cause a considerable increase in the recreation attraction of the area.

The town of Leavenworth, the Leavenworth federal fish hatchery, and the Icicle Irrigation District all use water which originates in the Alpine Lakes. Icicle Creek and its main tributaries discharge a base flow of 167 cfs with September the base month. So critical is this drainage that the demand exceeds the available supply in August and September.

The Irrigation District has installed regulating structures on five lakes within the proposed Wilderness. They are Upper and Lower Klonoqua, Square, Eightmile, and Colchuck. The Square and Colchuck structures are under special-use permit while the other three are on lands owned by the district. Some maintenance is required and the district has used roto aircraft access for this task in the past. The fish hatchery also maintains a similar dam at Snow Lakes.

Waters from west side rivers are used more for the domestic and industrial needs associated with large population centers. Seattle is the big domestic user while the small communities of Index, Baring, Grotto, Skykomish, and Scenic all receive water from streams with headwaters in the Alpine Lakes. Some irrigation is also supplied on the west side with a total annual flow of 10,200 acre feet being diverted for this purpose.

Long range predictions indicate a possible conflict between domestic and irrigation use by 2020. There is also a need for flood control along the lowlands of Puget Sound and the U.S. Army Corps of Engineers has proposed two dams along the Snoqualmie River as one alternative to alleviate this problem.

The upper one at milepost ten on the Middle Fork would create a reservoir extending two miles inside of the National Forest boundary based upon a full pool elevation of 955 feet. Resultant recreation opportunities would increase the use in this drainage considerably.

The collection of snow accumulation and stream flow data is a critical need for sound watershed management of these lands. The Forest Service, in cooperation with the Soil Conservation Service, maintains aerial snow depth markers at Waptus and Joe Lakes, Lemah Meadow and Van Epps Pass. Seven snow courses are also maintained on lands within the study area. These are accessed by snow machine and provide information to administrators of the Yakima River Basin Project.

Powerline corridors presently traverse these lands along both the Stevens Pass and Snoqualmie Pass highways. Some expansion of these lines is possible within the existing rights-of-way but two new 500 KV lines have been proposed for construction by 1990. These new lines would require additional rights-of-way and new corridor construction.

## 2. Recreation.

About 70 percent of all Alpine Lakes lands have a moderate or higher suitability for dispersed recreation use. Approximately 15 percent have a moderate or higher suitability for intensive recreation development. The availability and variety of outdoor recreation possibilities run the full spectrum of uses. Warm and dry summers provide a favorable climate for such diverse pursuits as camping, boating, horseback riding, and swimming, while winter snows are ideal for snowshoeing, skiing, and snowmobiling. Hunting and berry picking head the list of popular pursuits in the fall, while nature hikes and white water boating are favored springtime attractions.

Four of the twelve major ski developments in the State are located here as are over one fourth of the most popular mountain peaks for climbers. Thirty-eight major Federal campgrounds exist, as do historic attractions such as the Blewett and Liberty mining communities and the railroad history of Stevens Pass. Other major attractions include the Enchantment "Lost World Plateau," the adjacent town of Leavenworth, Tumwater Canyon, the Red Top Agate Beds, and the Cave Ridge Caves.

In 1972, National Forest lands within the unit received a total of 2,334,000 visitor-days of use. Of this figure, 259,000 visitor-days were recorded within the Alpine Lakes Limited Area. If the use on private lands not accessed by Federal roads and the number of persons driving the major highways through the area were included, a considerable increase in the first figure above would result.

The most popular attraction is camping with 32 percent of all persons entering the area for that purpose. Driving for pleasure is not far behind at 27 percent. Most limited area users go there primarily to backpack (77%) while only 13 percent are horseback riders.

In addition to the campgrounds previously mentioned, minimum development campsites are present at the major back country lakes and other recreation attractions. Over 250 miles of trail provide access to these spots including the Pacific Crest National Scenic Trail which traverses 65 miles of the Alpine Lakes Country.

Primary and secondary roads provide direct access to about 55 percent of the land. Trailhead facilities have been developed to varying degrees at the major access points into undeveloped areas. Boat launching facilities are available at all three reservoirs and at Cooper Lake, while swimming areas are delineated by buoys on Lakes Cle Elum and Kachess. There are nine existing summer home tracts on National Forest lands. Many of these permits are being phased out and none are being issued for new buildings.



In the private sector, developments associated with the winter sports complexes are being installed at an ever increasing rate. Four condominiums have been erected at Snoqualmie Pass within the past five years and a total of 448 recreation residences have been built. Subdivisions for recreation residences have been platted on all three reservoirs with a considerable number of buildings under construction or completed on Kachess and Cle Elum Lakes. Landowners who have been primarily oriented to commodity production are now turning with increased interest to the recreation potentials of their lands.

Ranger Districts involved in the renewed interest in outdoor recreation spawned by the environmental movement have found it necessary to increase the administrative personnel and enlist the aid of other agencies. Of primary importance was the passage of the Sisk Bill in 1971 which enabled the Federal Government to reimburse local law enforcement agencies to assist in the policing of National Forest lands. Constraints have been placed upon users in many different ways. A 150,000 acre air closure and a motor vehicle closure are now in effect in portions of the Limited Area and many other trails are closed to motorized use to reduce resource damage. Some trails have been closed to horse use and pack and saddle stock are prohibited to feed or be tethered within 200 feet of all lakes on National Forest land. The burning of native material is prohibited in the Enchantment. In addition, the forests have embarked on an active road closure program to reduce the impact upon fragile alpine areas.

Estimates of future use indicate that hiking will increase fourfold in popularity by 2020, while pleasure driving could triple by the same year. Unless proper emphasis in the form of management planning and funding aimed toward a better dispersion of recreation users is forthcoming, an increase in restrictions to the individuals using these lands appears imminent.

### 3. Wildlife.

The history of the wildlife resource is one which is similar to many other

regions of the country -- initial abundance followed by the development and exploitation associated with increased populations and the eventual imposition of harvest and protection controls.

Prior to 1880, a small pioneer population was clustered along the coastal lands of the State. Little agricultural development had been done and pollution was relatively unknown. Elk, deer, bear and mountain sheep were common and salmon migrated 1200 miles up the Columbia River unrestricted. Most fur-bearing animals were numerous by today's standards. In the 1890's, logging and agricultural development began to move inland and small dams placed in prime spawning streams began to restrict salmon runs, and eggs were flushed downstream or silted in. Livestock increased on the open range. Mountain sheep became scarce in 1885 and were virtually eliminated before 1900, probably from diseases brought in with domestic sheep.

In 1871, the Washington territorial government limited fixed fishing gear and in 1877 fishing seasons were introduced. By 1910, hunting and fishing licenses were required and seasons and bag limits were set for most species.

The demands upon the fish and wildlife resources have been increasing rapidly with increases in population and recent emphasis on outdoor recreation. With the loss of habitats, many species have diminished and some have become extinct. Others have been able to adapt to a new environment.

Over 50 species of mammals live in the Alpine Lakes country. Most are native to it such as the Columbian blacktail deer and the black bear. Others have probably expanded their ranges with the outside pressures imposed upon more preferred habitat, such as the mule deer and elk. Smaller animals, such as the wide ranging coyote and the rock dwelling marmot, find a niche in the various ecological climates of the land.

The two deer species tend to intersperse throughout the Cascade Range, but basically the blacktail deer utilizes the western more heavily vegetated slopes, while the mule deer roams the more open country to the east. Blacktail population counts in King County have indicated a most productive herd with estimates of 12 to 15 animals per square mile. Both species utilize this high country primarily as summer range.

An estimated 200 to 300 elk summer in the Ingalls and Icicle Creek drainages, while a lesser number move into the Cle Elum River Drainage to find summer range. Forty or so animals of the Rainier elk herd inhabit lands along the Middle Fork of the Snoqualmie River.

The mountain goat may be found throughout the higher elevations. A very hearty animal, they seem to thrive in the harshest of habitats. Primary points of concentration include Mt. Stuart, Mt. Cashmere, Icicle Ridge, Davis Peak, Chickamin Mountain and Cone Mountain.

Big game animals are harvested annually under regulations imposed by the State Game Department. Deer hunters normally experience success ratios of about 30 percent during regular season hunts, while the special early buck hunt in the high Cascades normally produces a success ratio under 5 percent. Mountain goats are hunted under a permit system which is closely regulated with success ratios often as high as 60 percent.

A host of smaller animals including six varieties of shrew and ten varieties of bats find homes in this country. Pocket gophers, squirrels, marmots, conies, mice and rabbits are commonly seen while marten and mountain beaver are less observed. Five resident mammals are listed as rare in the State of Washington. They are the cougar (mountain lion), Canada lynx, Cascade red fox, fisher and wolverine.

Furbearers are found in small populations throughout the area. They include beaver, otter, weasel, mink, bobcat, and badger. Some fur trapping still takes place but market conditions do not encourage this as an economical venture.

An estimated 150 species of birds inhabit the Alpine Lakes region. Song birds, woodpeckers, water fowl and game birds all abound in assorted locations and at various times. Blue grouse, ruffed grouse and fool hen are among the larger birds seen, while the white tail ptarmigan, which inhabits the higher more rocky sites, is a species prized by photographers. A favored song bird is the hermit thrush which inhabits the mixed conifer types of the lower elevations.

Waterfowl normally utilize the lakes and streams as resting places on their migratory trips. Among the most common are the mallard, pintail, scaup, teal, widgeon and coot.

Both the bald eagle and the osprey are considered to be endangered species and both may inhabit these lands. No known nesting places exist within the unit but several have been located on lands nearby.



Although no serious habitat management problems appear to be present at this time, several indicators point to future problems. Foremost among these is the competition for habitat between the resident population and an intruding species which has been forced to leave because of outside pressures. An example is indicated in the apparent competition for feed between deer and elk in the Icicle Creek drainage.

Most of the high lakes were barren of fish until man entered the scene. Although many are shallow and subjected to periodic freezeouts others are regularly stocked by the State Game Department. These plants, usually done by air, normally contain eastern brook, rainbow, cutthroat and golden trout. Productivity is cyclic with the deeper and more fertile lakes producing fish in the 14 to 16 inch range.

Kokanee (Silver Salmon) have been introduced to the Cle Elum, Kachess and Keechelus reservoirs. An anadromous fish, they migrate up the tributaries of these lakes to spawn. The larger natural lakes in the proposed Wilderness also contain populations of mackinaw (lake trout) and dolly varden.

The Wenatchee and Skykomish Rivers support anadromous fish runs of Sockeye, Coho and Chinook Salmon and Steelhead. Icicle Creek contains spawning runs of Salmon and Steelhead while Peshastin Creek, Teanaway and Yakima Rivers support remnant runs of Chinook and Steelhead. Native cutthroat can be found in the headwaters of many streams and the Game Department maintains a put-and-take rainbow trout fishery throughout the system. In 1972 fishermen spent 109,600 visitor days fishing the lakes and streams of the Alpine Lakes.

#### 4. Timber.

The State of Washington accounts for 10 percent of the total United States production of lumber and wood products. In 1970, the timber harvested in the State was 6.5 billion board feet. The total harvest in Chelan, King, and Kittitas Counties was 605 million board feet or 9 percent of the State total. The National Forest volume involved 141 million board feet and amounted to 2 percent of the State total in 1970. The National Forests accounted for 78 percent of the harvest in Chelan County, 14 percent in King County, and 36 percent in Kittitas County. The harvest in the Alpine Lakes Unit was estimated to be between 5 and 8 percent of the harvest on all ownerships in the three counties that year.



The current annual allowable harvest from National Forest land within the Alpine Lakes study is 67.5 million board feet. Receipts to the United States Treasury from this volume total about \$3,712,000 while the counties receive \$928,000 (based upon 1970-1972 dollars).

Timber from the west side of the unit along with 39 percent of the volume harvested in Kittitas County to the east goes to the mills situated in the Seattle area. The remainder is processed by mills located in Chelan and Kittitas Counties.

This volume currently harvested is below the total potential allowable harvest because of the various restraints which have been placed upon the harvest of National Forest Timber in recent years. The Alpine Lakes limited area has not been available for harvest since 1946 and deferrals in other scenic and undeveloped units have been made. Areas requiring logging techniques and equipment presently uneconomical or unavailable have been placed in a marginal category with no harvest assigned and lands of critical soil suitability have been eliminated from harvest consideration.

Timber removal techniques have varied greatly over the years with the clear cutting method most commonly employed. A recent trend toward more partial cut units has developed however. Skylines and helicopters are showing promise in some locations and will be employed to some degree on future harvest units.

Over 90 percent of all cutover National Forest lands support established regeneration while the remainder will require additional planting to bring them to a fully stocked level. Silvicultural practices are being intensified as the national need for timber becomes more critical and more forest lands become accessible for management. An imbalance of funding in favor of timber harvesting has precluded the opportunity for an intensification of management practices. Insect and disease attacks have caused a considerable amount of damage to timber stands over the years. Primary among these invaders have been the Western pine beetle, spruce budworm, Douglas-fir bark beetle, Balsam Wholly Aphid, dwarf mistletoe and white pine blister rust. In 1972, a particularly devastating attack by the Douglas-fir tussock moth on the Wenatchee National Forest will result in the defoliation of an estimated 5,000 acres of mature timber.

## 5. Forage.

Sheep grazing began in this Cascade Range shortly after the turn of the century. The impact upon the forage resource rapidly increased until the late 1930's when a downward trend began to develop. Most of the bands annually grazed the scattered meadows on the eastern slopes and travelled into the higher cirque basins and the western slopes as summer progressed. These natural meadows of forage and grass cover represent about 7 percent of the total land area of the undeveloped lands in this study.

The only active commercial allotment within the Limited Area is in the Wildhorse-White Pine Creek drainage along the northern boundary. Here an old burn and meadow lands provide suitable forage for 1,000 ewes and lambs every other year. A total of 2,494 animal unit months are permitted based upon an intensive range analysis. The grazing season extends from July 11 through September 15. No range improvements have been installed.

Three other allotments are located all or partly within the study area. They are the Corral-Fortune, and Table Mountain Sheep allotments and the Stafford Cattle allotments. Eighteen hundred sheep and 53 cattle graze these lands annually. Range improvements consist of five miles of sheep driveway and one water development.

At one time the entire unit was under permit to various parties. Today, these are the only allotments left, an indication of the faded profit margins associated with wildland grazing on the marginal and relatively inaccessible lands of North Central Washington.

The trend in grazing impact by recreation stock in the proposed Wilderness is upward as indicated by a 16 percent increase in horseback rider use between 1967 and 1972.

There is an estimated 4,810 acres analysed as suitable recreation livestock range. Of this, about 20 percent is adjacent to popular lakes and favored campsites and is generally heavily used. The remaining feed is somewhat remote from the favored campsites and is used only lightly or not at all. The total acreage contains an estimated capacity of 1,083 animal-unit months per year.

## 6. Minerals.

Approximately 241,000 acres of the Alpine Lakes Study contain a mineral resource. About 55,000 acres are within the proposed Wilderness.

Past production records indicate that over \$5,000,000 worth of metalliferous resources, mostly in the form of gold and copper, have been removed within the past 100 years.

Mineral deposits in the Alpine Lakes have been prospected since the 1840's. Today it is still being done to varying degrees with both primitive methods and advanced technology. There is sufficient evidence to indicate that economic sources of metallic minerals may well be discovered which would incite considerable mining activity in the foreseeable future. This is most likely to occur in the Upper Middle Fork of the Snoqualmie River from Goldmeyer Hot Springs to LaBohn Gap, the lower Money Creek and Miller River drainages, and in Quartz Creek. The Snoqualmie River unit is within the proposed Wilderness.

It seems apparent from past history that much of the metallic mineral resource has not been fully explored. There are several reasons for this. First, the high-unit-cost mining required to sink a shaft was not considered to be economical, based upon market values during the 1890-1940 period when most mines were worked. Therefore, most diggings were entered by adit and little depth of exploration was achieved. Secondly, there was a decided lack of efficient mills in the vicinity capable of milling gold from sulfide ores or of making a selective separation of copper, lead, and zinc in merchantable concentrations. Ores were generally shipped directly to smelters, the only one of which exists today is located in Tacoma. A third factor is the more recent discovery that the narrow high grade veins closer to the surface may be a manifestation of large low grade copper deposits beneath.

The most prevalent nonmetallic minerals are coal and limestone. The Cle Elum-Roslyn coal fields produced an estimated 61,000,000



tons of coal before the last mine closed in 1963. Explorations continue in this field and it is quite possible more mining may be done if economic means of removal, processing, and transportation can be found.

The Snoqualmie batholith is the primary source of cement-grade limestone. Past production of this rock is estimated at 2,000,000 tons. There is a wide variety of other nonmetallic mineral deposits but none appears to have economic importance at this time.

The U.S. Geological Survey and U.S. Bureau of Mines have completed a study on the geology and possible mineralization of 90 percent of the proposed Wilderness. The remaining portion will be done during the summer of 1973.

## 7. Wilderness.

Wilderness was recognized as a distinct resource by the Congress when the Wilderness Act declared it to be the policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of Wilderness. It was defined in the Act as "an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain."

The 285,193 acres of the proposed Wilderness and the adjacent 165,068 acres of roadless lands all are undeveloped and meet the physical requirements of the Wilderness Act. In fact, the first step in the study process was to start from a boundary which considered all this land as a unit with characteristics common to the legal requirements of the act.

The central portion of the proposed Wilderness has obvious scenic qualities which few persons have challenged either before this study or in the public involvement initiated by it. The snow-capped peaks, blue alpine lakes, and showy mountain meadows seem to fit everyones concept of a characteristic Wilderness.

The Alpine Lakes is land with endless variety and many opportunities for adventure and excitement. Much of it is open allowing the visitor opportunities to see out to a distant mountain peak such as Mt. Rainier or to view an

abundance of wildflowers and animals. Much of it is easily traversed off the more commonly used trails. Geologic formations are everywhere and the chance to study the glacial evidence which shaped them is great.

A most popular attraction is the exceedingly beautiful and appealing Enchantment or "lost plateau" on the north slope of Mt. Stuart. Here at an altitude of over 7,000 feet is land with a variety of attributes. Sometimes like the moon with huge boulder fields and barren wastes, at other times like a Japanese garden with its multitude of small, fragile plants and sparkling waters, and always awesome with sheer rocky crags and a fearsome mountain climate.

The typical characteristics of the Alpine Lakes cannot be expressed only in terms of mountain peaks and glacial ponds. Over half the land is forested. Many forms of vegetation exist in the broad valleys in the lower elevations. It is the "forest primeval" with scattered open stands of tall old-growth Douglas fir and hemlock interspersed with many young tree stands, the results of old fires and insect infestations much in evidence.

This land is more rugged and therefore more restrictive to the traveler. Dense brush fields are not uncommon and favorable camp spots between the valley bottoms and the ridge tops are not abundant. Wildlife, though as frequent as any other place, cannot often be seen.

And so the attributes which cause this country to be qualified for the wilderness resource tends to diminish to a degree from the inside out. And as the outside edge of the land which legally qualifies for Wilderness is neared, other factors enter the picture. A national need for more intensive types of recreation and for wood products are two which must be considered. The need to protect a suitable and available wilderness resource whether it be through management or legislation is also a strong consideration.

It is these factors supported by the expressions of a concerned public which have caused some of these lands to be recommended for a designation other than Wilderness.



### III. ENVIRONMENTAL IMPACTS.

#### *Society*

The proposed action will have a significant impact upon the land and upon the society it influences. Change will be most readily apparent in the effects upon the communities near the Alpine Lakes. Here, social and economic values have a high dependency upon decisions concerning the land and its uses. But biological considerations inherent in the land itself will be no less influenced, though they may tend to appear more subtle.

#### *Soil & Water*

Water quality can be maintained with the proper management techniques applied to all lands. But the influx of a recreating public will test all the skills of the administrator to achieve this goal. The quantity of water now produced and utilized from the area will not be diminished, but the opportunity for man to increase the use of this resource, or to manipulate its flow will be impaired. All other land uses will be managed to protect the water resource.

#### *Recreation Use*

The classification of Wilderness will draw national attention to the Alpine Lakes. A resulting increase in visitations can be expected and controls will be necessary to protect land values.

With twenty major access points to the Wilderness readily available, pressures upon the more popular sites will increase. To protect the integrity of this resource certain existing roads will need to be eradicated or limited to use.

Ski developments at Snoqualmie and Stevens Passes offer a variety of slopes which provide an interesting and challenging experience to the novice and expert alike. Possible expansion of these areas and three potential new ski areas could be developed within the peripheral management unit while three potential new ski areas will be preempted by the proposed Wilderness.

### *Ecology*

Natural ecological succession will continue to occur to the fullest extent possible in the Wilderness, subject to activities and practices authorized by the Wilderness Act. Wilderness management would be within the scope of the Multiple Use-Sustained Yield Act which fully recognizes that designation of areas of National Forest land for Wilderness is compatible with the concepts of multiple use and sustained yield.

Undeveloped lands not recommended for Wilderness will be available for total resource management consistent with the intrinsic suitability of the lands.

### *Pollution*

The various forms of pollution associated with the activities of man can be expected to increase. Noise from areas of concentrated public use and increased vehicular traffic, air pollution from campfires and internal combustion engines, littering, and improper sanitation are examples. To minimize the impacts upon the environment, increased law enforcement measures will be necessary and land management practices such as vegetative buffering, trailer waste collection points, litter stations, day use only sites, and sanitation facilities will need to be provided.

Pollution carried on westerly winds from the Seattle complex are already causing a deterioration in air quality within the Alpine Lakes. This is most graphically illustrated in the reduced quality of aerial photography experienced in recent years.

Air inversions are frequent over the deep valley, creating favorable conditions for the entrapment of pollutants. The increase of motorized use will tend to cause a pollution of the air as well as an increase in noise levels particularly in areas of public concentration.

### *Fish & Wildlife*

The wildlife resource will be influenced by the increased use of the land by man. Those species which can adapt to changes in habitat and feeding habits will survive while those which cannot will be driven further from their natural habitat. The Wilderness will provide a natural sanctuary for those birds and animals which are native to

*Fish &  
Wildlife*

it and to those which can adapt. Natural fishlife will be more adversely influenced than now and survival of the fishery resource will depend more upon the products of the hatchery. Habitat protection for all species identified as endangered will receive priority over other land uses.

Economic Effect. There is an opportunity for private investments to provide high density recreation facilities compatible with the proposed use and protection of the area. This would tend to bolster local economies which would lose revenue associated with the removal of other resource commodities. The private sector or governmental agencies other than the Forest Service will be encouraged to supply recreation developments which require a high degree of site modification. The primary role of the Forest Service will be to provide dispersed recreation opportunities.

*Land  
Development*

Restrictions imposed by the intensified management of these lands will have a significant impact on private land owners. Environmental constraints upon logging, road building, and other land modification and development practices will be imposed more and more in the future. These constraints, while providing for increased protection of scenic and recreational values within the Alpine Lakes will also result in more costly land management practices and development procedures. While some lands may be expected to decrease in value because of this effect, those lands which have suitability for recreation development can be expected to increase in value.

*Timber*

This recommendation will result in a sustained timber supply of 60.7 million board feet annually available for the growing needs of the country and the support of the local communities. This is a reduction of 6.8 million board feet annually available under existing management direction. The protection of the other resources in the removal of this commodity is already provided for under current Forest Service policies and practices, including National Forest in a Quality Environment - Action Plan and the Visual Management System.

Economic Effect. The reduction in timber volume available will result in less return to the U.S. Treasury and to the 25 percent fund for the counties. While \$3,712,000 are now available to the U.S. Treasury annually, the recommendation



would result in an annual return of \$3,338,500. Counties which now receive a total of \$928,000 would receive \$834,625 under this plan. Local dependent communities will be affected by a decrease in payrolls from woods oriented work. However, the measure of this impact will be difficult to assess because of outside influences and trends in the wood processing industry. Centralization and automation of mills to increase capacity and efficiency has resulted in an element of uncertainty for those employed by the industry. Fluctuating prices and decreased profit margins have caused the smaller mills to either streamline operations or face closure.

#### *Grazing*

Range improvements not compatible with Wilderness will be foregone in the Wildhorse Sheep Allotment. Conflicts between commercial and recreation stock use are minimal at this time. Increased recreation use could cause some conflict in the future however, and reductions or modifications on either type of allotment could result in economic impacts to ranchers and packers. Because commercial grazing is limited to summer range which is abundant, no conflict has been identified between this use and wildlife. Winter range is the limiting factor on big game species within the area. Of more concern is the lack of sufficient available feed for recreation stock at many high use sites. Supplemental feed is required to be carried to some sites now and an increase in this practice can be expected. All livestock use will continue to be controlled under approved management plans to the extent that such use is compatible with other resource values.

#### *Minerals*

The proposed Wilderness will be available for mineral exploration and filing of claims until December 31, 1983. After that date, only existing valid claims may be developed. Mineral resources, if not located and claimed by the above date would remain undeveloped and could have an adverse effect on national social needs and economic benefits. As this land is now managed to protect the Wilderness values, no increase in restrictions for mineral removal would be made by classification over what now exist. Mineral explorations and mining activity outside of the proposed Wilderness will be subject to existing mining laws and regulations as well as State requirements as cited in Title 78 and 332-18 Revised Code of Washington.



*Fire  
Management*

The potential for man-caused fires will increase with more visitors. Fire prevention activities such as signing, patrolling and public education will need to be increased. Fire control activities will be limited in Wilderness because of motorized equipment restrictions. More emphasis is likely on the use of fire as a forest management tool. Natural ecological successions in Wilderness could be permitted to continue through intensive fire management planning and delineation of no-control zones. However, emphasis in fire control will not shift away from the basic need to protect life and property. As more private year-around developments take place, the need to provide more thorough fire protection of these facilities will increase. Cooperative fire control programs and mutual aid agreements will become more important to the safety and well-being of the forest visitor and resident.

*Cultural  
Values*

The archeological potential of these lands has not been fully explored and the impacts of this recommendation are difficult to assess. Increased public use may jeopardize the potential for study of historic and archeologic data but this can be largely offset by an increased emphasis on inventory and protection of these areas. The opportunity to interpret and provide public access to historic and other cultural features will remain available.

#### IV. FAVORABLE ENVIRONMENTAL EFFECTS.

##### *Society*

Wilderness classification will provide protection of scenic, scientific, historic, and other values contributing to the public enjoyment. It will preserve for future generations those unique attributes vitally needed for man's enjoyment and well-being. The location of the area is such that it will compliment the economic and social climate of the large population within its influence over a long period of time.

##### *Wilderness*

The proposed Wilderness will assure retention of the challenge and inspiration of natural and unspoiled environment away from his mechanized world. The opportunity to renew his relationship with nature and to achieve a nearness to it not available in his normal society will be ever present. Values not normally experienced such as solitude, inspiration, spiritual awareness, and the spirit of adventure will all be made available to him and to future generations.

##### *History*

Greater emphasis will be placed upon historic information through classification which will also enhance the contribution to the National heritage enjoyed, however vicariously, by the majority of American people.

##### *Science*

The opportunity to observe natural and scientific phenomenon will be made available through the preservation of wilderness values. It will provide for ecological "benchmarks" and enhance the study of outdoor biologic and geologic data not found in the classroom.

##### *Education*

##### *Management*

The proposed management of these lands as a unit with a Wilderness as an integral part will serve to facilitate protection of the Wilderness values in management planning. Management objectives have been developed to protect all resource values.

##### *Soil & Water*

The natural and undisturbed soil conditions associated with the higher elevations of the proposed Wilderness will provide a reservoir of clean water late into the summer when it is most needed in the lower valleys. The potential for soil erosion will be reduced through the foregoing of land development practices in the Wilderness.

Recreation Use	Recreation is already the key use on a large portion of the land. The proposed action will recognize this fact and provide a means of regulating this use to best protect the environment.
Timber	Lands surrounding the Wilderness will be dedicated to total resource use compatible with the recreational objectives of the area. This will include a sustained annual allowable timber harvest. Valleys of mature old growth timber which are included in the Wilderness will provide reference for foresters in the future study of silvicultural methods. These will also provide historic evidence of the natural timber stands of the Pacific Northwest.
Fish & Wildlife	The designation of Wilderness will preclude actions by man which may damage or destroy essential wildlife habitat. Many of the animals native to the higher elevations would not survive the influences of mans' development.
Land Development	Federal and private facilities have been constructed more or less independently in the past with little thought given to consolidation of effort. This is particularly true in the construction of water and sanitation facilities. Consequently, much competition is present in the obtaining and development of the water resource and with the possible exception of the Snoqualmie Pass complex, sewage facilities have not been emphasized. As a result, ground water pollution is prevalent and in some cases, sewage drains directly into lakes and streams. Steps are now underway to solve this situation but it is increasingly evident that centralized facilities will need to be provided and increased expenditures will be necessary from both federal and private sectors as more recreation developments are constructed. The proposed action would offer a vehicle by which unsightly and uncoordinated development practices by man might be avoided. Zoning standards would provide the necessary encouragement to all parties involved to work together for a common cause--the protection of the environment and the enhancement of the scenic and recreational qualities of the land.
Pollution	
Dependent Communities	The increase in visitations brought about by National recognition will increase the economic growth of surrounding communities. This will add new stimulus to the trend toward more tourist oriented attractions in towns surrounding the area and this in turn will add to the economy even more.



V. ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED.

*Society*

The designation of Wilderness causes a wide range of impacts upon society which may adversely affect it. The possibilities for man to improve the quality and the quantity of essentials such as food and shelter are limited by the wording of the Act. In fact, any legislation which proposes a classification of land for a dominant use restricts the total capacity of the land to satisfy the needs of men. Such will be the case with the proposed action.

*Ecology*

On wild land a natural ecological succession continues to occur with little deviation from the past. But it can no longer be wild land if it is labeled Wilderness with a capital W and managed by man for his needs and desires. It attracts man by its very name and with him comes the inevitable change from the natural succession of the past.

*Wilderness*

To designate land Wilderness is to create an impact upon it. It is immediately classified in the vernacular of man and as such, becomes an attraction. And, as has so often happened with other attractions that man has created, he has to eventually place restrictions upon himself to keep his Wilderness. He has not only succeeded in influencing the land resource, but has also burdened himself with more restrictions, the very thing he was trying to avoid in the first place.

*Soil &  
Water*

The opportunity to increase water yields or to manipulate the time of yield through the use of structural controls will be foregone in the Wilderness, unless approved by the President. There are no immediate plans for this type of project within the proposed Wilderness, but as the nation faces increased needs for water and power, the potential to develop this resource by whatever means, will be severely restricted. Studies which may enhance the use of water in the lower valleys will also be reduced because of the need to conduct these with the use of man-made devices. Such structures as snow pillows, snow markers, and electronic weather stations would not be permitted.

*Science*



*Recreation  
Use*

The recreation carrying capacity will be considerably reduced in Wilderness. Where the land is capable of sustaining a back-country type of recreation use, and 130,000 acres of it is, numbers will be restricted because of the requirement to provide a Wilderness experience rather than one of dispersed recreation. It is estimated this will cause a reduction of 1-1/2 times in the number of people which could use the area for dispersed recreation if it were not classified, and sufficient dispersal facilities were provided.

*Management*

Comfort and convenience items such as stoves, tables, and shelters will be foregone in Wilderness. Tools which aid in the dispersion of people such as campsite construction will not be permitted resulting in more direct control of people such as camping and wood cutting restrictions and the requirement of permits. Roadside development possibilities will be lost in many of the broad drainages emanating from the proposed Wilderness.

*Wildlife*

Although natural conditions will prevail for the protection of the wildlife habitat, improvements or studies to enhance this resource will be restricted in Wilderness. Facilities such as game exclosures and water guzzlers, will not be permitted. Lake and stream fish planting programs carried out by the Washington Department of Game will continue but could be severely restricted if administrative use of aircraft is denied.

*Management*

*Timber*

Of the 67.5 million board feet now harvested each year 6.8 million board feet is within the proposed Wilderness and would not be harvested.

*Dependent  
Communities*

Economic Effects. The total reduction in timber cut would result in a decrease of \$374,000 to the U.S. Treasury and \$93,500 to the counties. The current return is approximately \$3,712,500 and \$928,000 respectively. (All figures are based upon 1970-1972 dollars.) The average annual employment in the timber industry supported on the revised allowable harvest would be 488 jobs projected from the base year of 1970. This would be down 64 jobs from those now supported. Thus it is apparent that economic impacts will occur primarily in the small dependent communities close to the Alpine Lakes. (See Table II.)

*Grazing*

Structures which would improve the quality of the range resource would not be allowed in Wilderness placing greater responsibility upon the ranchers to disperse their livestock. Recreation stock users will also feel this impact in the imposition of additional regulations to control stock use because of the lost opportunity to accomplish this, at least in part, through structural devices.

*Minerals*

The danger of compromising wilderness values in the removal of minerals will be increased with classification. Although the impacts on the environment may be minimized as they can be on all lands, some detrimental alteration in the Wilderness resource by this action cannot be avoided.

Economic Effects. Costs of removal will be increased in order to provide the required minimum influence and this in turn will be reflected in costs of the finished products to the consumer.

*Land  
Development*

Future legislative and management restrictions will impose more control over private lands with the result that a 30 percent decrease in annual allowable timber harvest could result. The potential allowable annual harvest from private lands is about 47 million board feet. Zoning would cause more short term investment in the development of recreational facilities to be necessary because of the need to protect aesthetic considerations and develop means to collect and dispose of waste material. These costs would be absorbed in increased assessments to the public for goods and services offered.

## VI. ALTERNATIVES TO THE PROPOSED ACTION.

Eight alternatives were considered in the development of this proposal. All are viable alternatives based upon an analysis of the intrinsic suitability of the land, environmental impacts, legal requirements, and public response. Under each the National Forest management would meet the requirements of the Multiple Use - Sustained Yield Act and the National Environmental Policy Act.

- A. An Alpine Lakes Wilderness of 178,000 acres and an Enchantment Wilderness of 45,000 acres.
- B. An Alpine Lakes Wilderness of 285,000 acres.
- C. An Alpine Lakes Wilderness of 182,000 acres
- D. An Alpine Lakes Wilderness of 178,000 acres, an Enchantment Wilderness of 45,000 acres, and an area of 231,000 acres, managed for key recreation use. Remaining study area lands to be managed for total resource use.
- E. An area of 924,000 acres, managed for key recreation use, with two Wildernesses totaling 223,000 acres in the core.
- F. An area of 926,000 acres, managed as a National Recreation Area, with one Wilderness totaling 365,000 acres. Legislation has been proposed by the Alpine Lakes Protection Society for this alternative.
- G. An area of 924,000 acres, managed for key recreational use, with one Wilderness totaling 285,000 acres in the core.
- H. No change in present management direction. This alternative represents continued management under present laws and regulations.

Within each of the above alternatives, the impacts upon the private landowner would vary with the degree of control imposed. Three variations were considered and are outlined below.

### 1. Local Jurisdiction.

This is the option which represents the status quo. Regulations already in force and those which may be initiated in the future by State and County governments would provide the necessary environmental controls. Alternatives A, B, C, and H propose only this alternative for controls over private lands.

2. Local jurisdiction within the framework of federal legislation.

This option would impose federally approved zoning standards upon the private lands. Regulations would be prepared by the Secretary of Agriculture specifying standards for approval by him, of ordinances to be enacted by local zoning authorities. This is a slightly modified version of the "Cape Cod formula" based upon the legislation for the Whiskeytown-Shasta-Trinity National Recreation Area.

Such legislation would require that any developments harmonize with the adjacent uses and natural features of the land. It would also establish guidelines for the enhancement of recreational values by providing for zones of vegetation, distance, and topography necessary to reduce such impacts as noise and intervisibility upon the recreation experience.

This option was considered in the evaluation of alternative F while both options 1 and 2 were considered in alternatives D, E, and G.

3. Federal Land Use Guides.

In this option, the federal government would be responsible for the development and implementation of land use guides without local government involvement provided private land-owners adhere to such guidelines. Federal acquisition without the consent of the landowner would be prohibited. The jurisdiction for any review of these regulations, should a complaint be filed, would be that of the U.S. District Court. This is similar to legislation enacted for the Sawtooth National Recreation Area in Idaho.

This option was considered in alternatives D, E, and G along with the other two options.

Federal land management options within the alternatives consist of three basic methods.

1. Management under existing laws and regulations.

This would involve the total management of all resources on the land with direction in specific areas provided for by detailed management plans. Key use areas may be defined and managed as



an integral part of the total area or specifically designated under Secretary of Agriculture regulations or those imposed by the Chief of the Forest Service. All alternatives could involve lands managed in this way.

2. Wilderness.

All alternatives except H specify areas suitable for management under the Wilderness Act. These lands could be added by the Congress to the National Wilderness Preservation System and managed in accordance with P.L. 88-577 dated September 3, 1964.

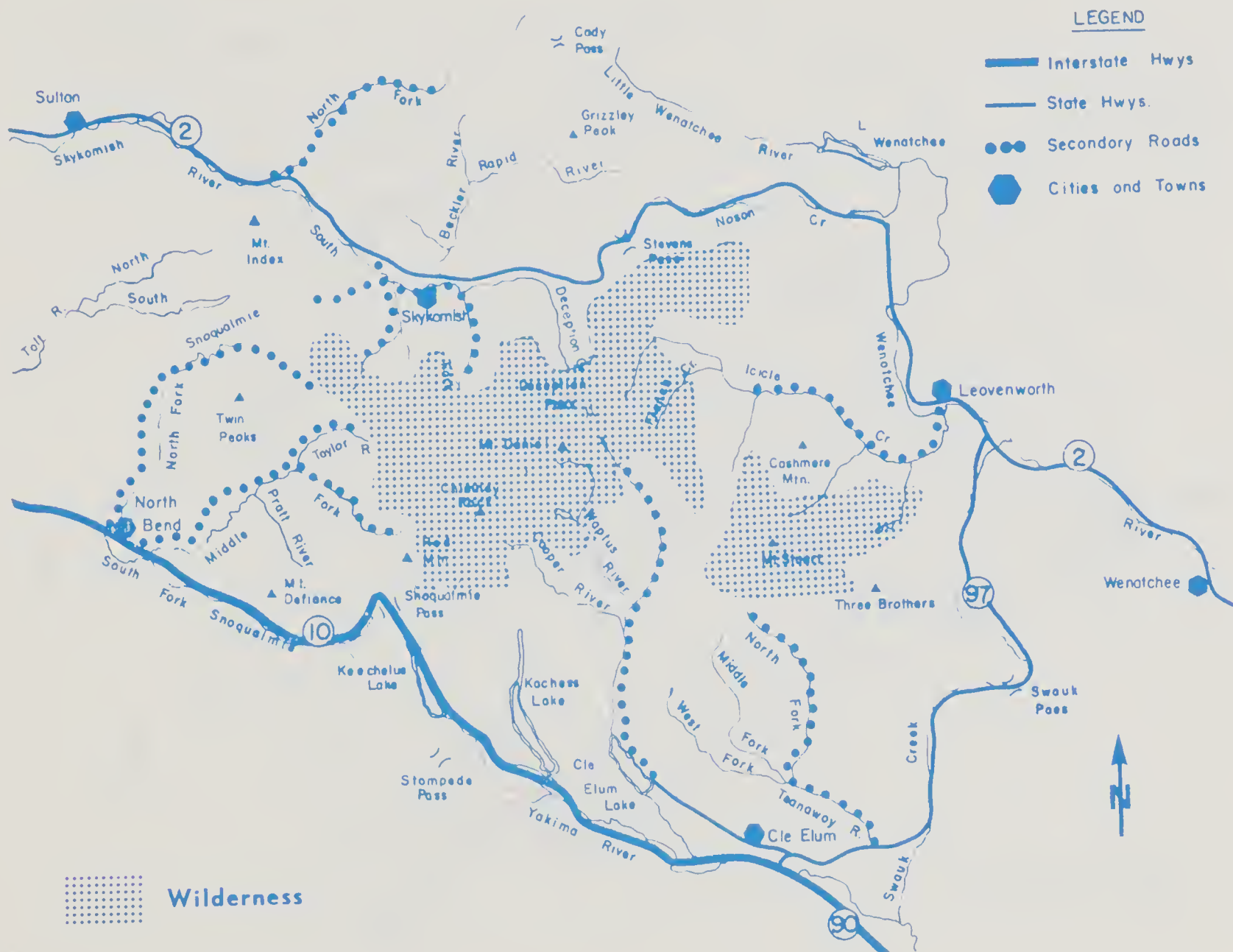
3. National Recreation Area.

Alternative F specifies an area for classification as a National Recreation Area.

In 1963, the concept of NRA was proposed by the President's Recreation Advisory Council to help provide additional recreation opportunities and facilities for the American public. Thus far, Congress has established six such areas administered wholly or in part by the Department of Agriculture. Each is managed under separate legislation prepared specifically to apply to the lands involved. Such legislation provides for emphasis on recreation values and permits other uses provided they do not substantially interfere with recreational and scenic values. The general concepts, purposes, and policies which are now established for these areas would be applicable to lands in the Alpine Lakes Country.

## ALTERNATIVE A

Description - An Alpine Lakes Wilderness of 178,000 acres and an Enchantment Wilderness of 45,000 acres.



Analysis - This is the proposal recommended by the Central Washington Cascades Study Team sponsored by the timber industry and the major land owners. In addition to the Wilderness, it recommends two scenic areas totaling 36,750 acres north of the study area and a 1,120 acre botanical area within the study unit. It further recommends that primary management emphasis in alpine forest zones be placed upon water, wildlife, and dispersed recreation while the emphasis in the transition and general forest zones should be upon timber management and medium density recreation.

## ALTERNATIVE B

Description - An Alpine Lakes Wilderness of 285,000 acres.

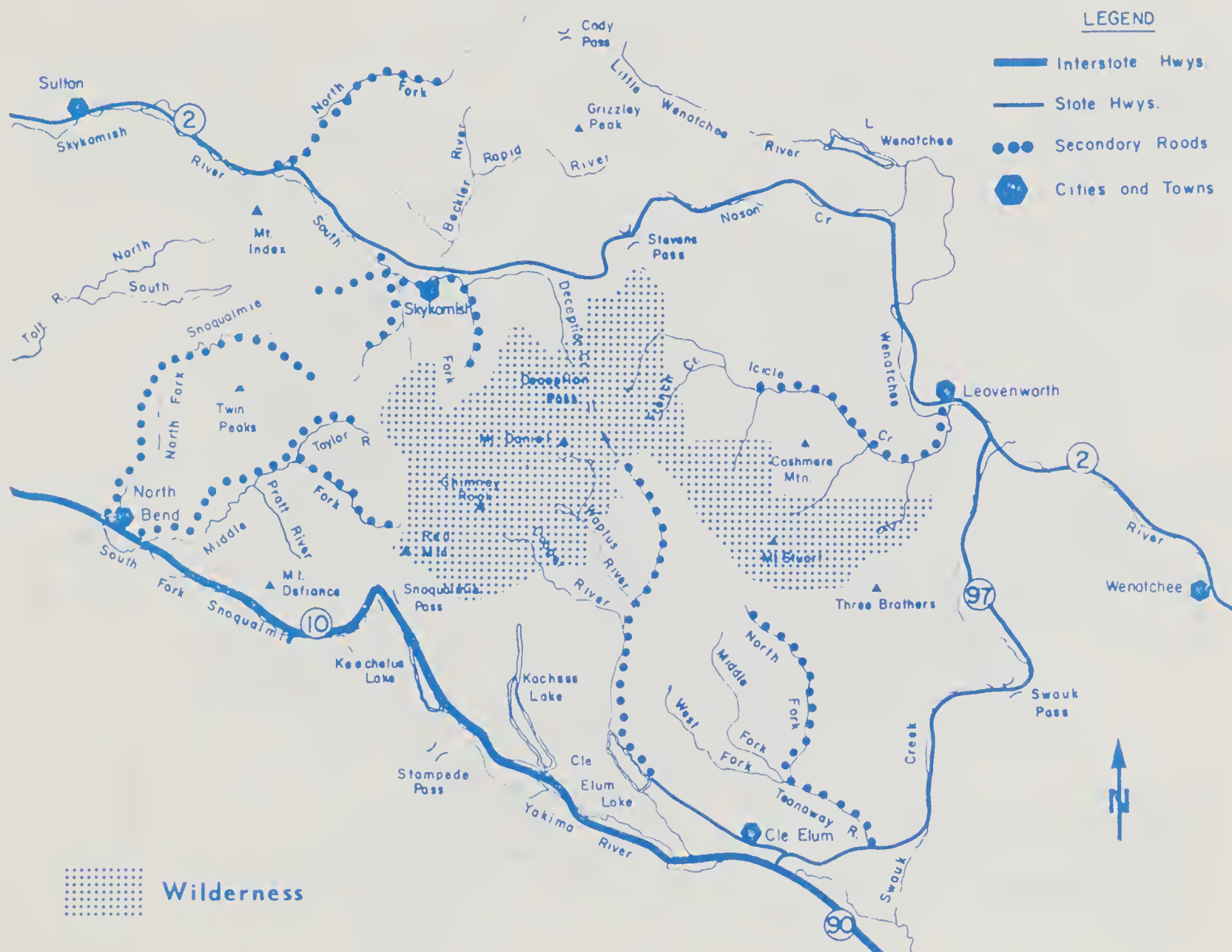


Analysis - Three formal proposals were submitted by conservation groups supporting this concept. Although all three included lands not now available because of private ownership (80,000 to 120,000 acres) the acreage shown here includes only that land which can be added to the Wilderness system now. The other lands would remain unclassified although recommendations included a variety of recreation oriented management directions such as scenic, back-country, and cross-country vehicular use.



## ALTERNATIVE C

Description - An Alpine Lakes Wilderness of 182,000 acres.

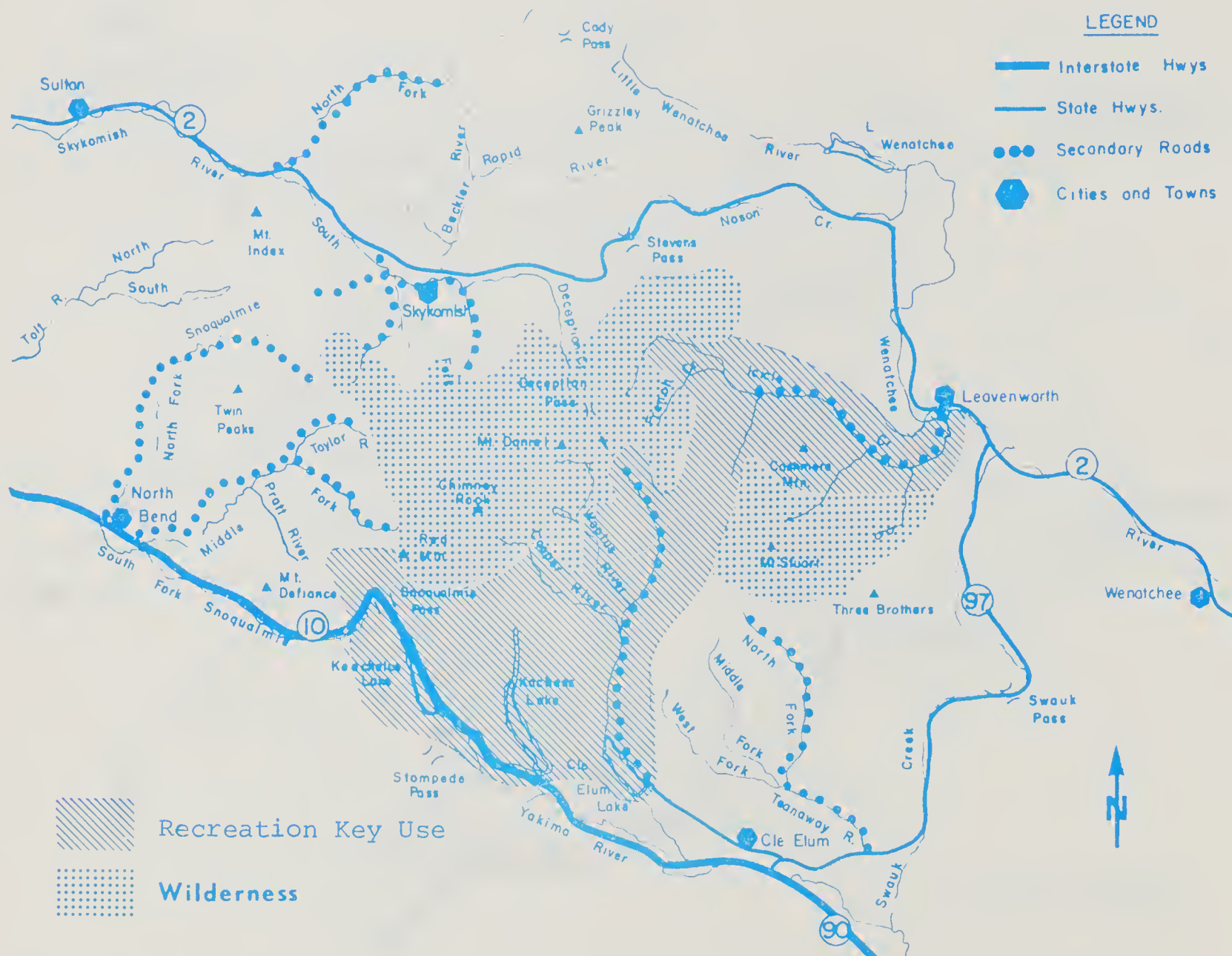


Analysis - This is the smallest area proposed for Wilderness classification. It would not include the Pratt Mountain - Lake Dorothy and Twin Peaks lands on the Snoqualmie National Forest, or the Chiwaukum Mountains and Rampart Ridge on the Wenatchee National Forest. These and all other lands would remain unclassified.



## ALTERNATIVE D

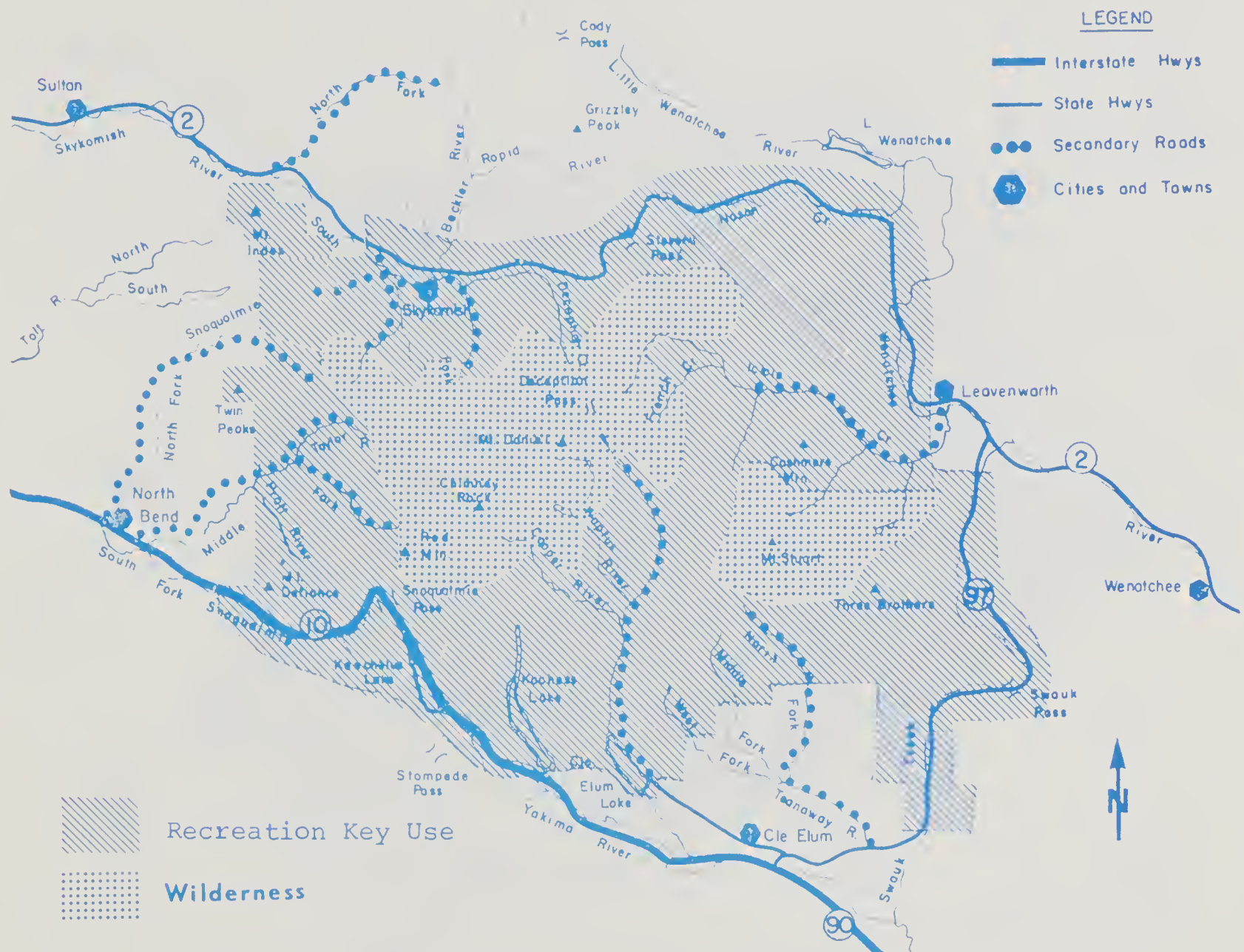
Description - An Alpine Lakes Wilderness of 178,000 acres, an Enchantment Wilderness of 45,000 acres, and an area of 231,000 acres, managed for key recreation use.



Analysis - The Cle Elum area and the Icicle Creek drainage tied together by the "Jack Creek Corridor" are the lands considered to be most suitable for developed recreation use. This alternative was presented to the public in January 1973 as alternative C. The lands remaining within the study unit; i.e. those not classified as Wilderness or devoted to key recreation use, would be managed for total resource use.

## ALTERNATIVE E

Description - An area of 924,000 acres managed for key recreational use with two Wildernesses totaling 223,000 acres in the core.

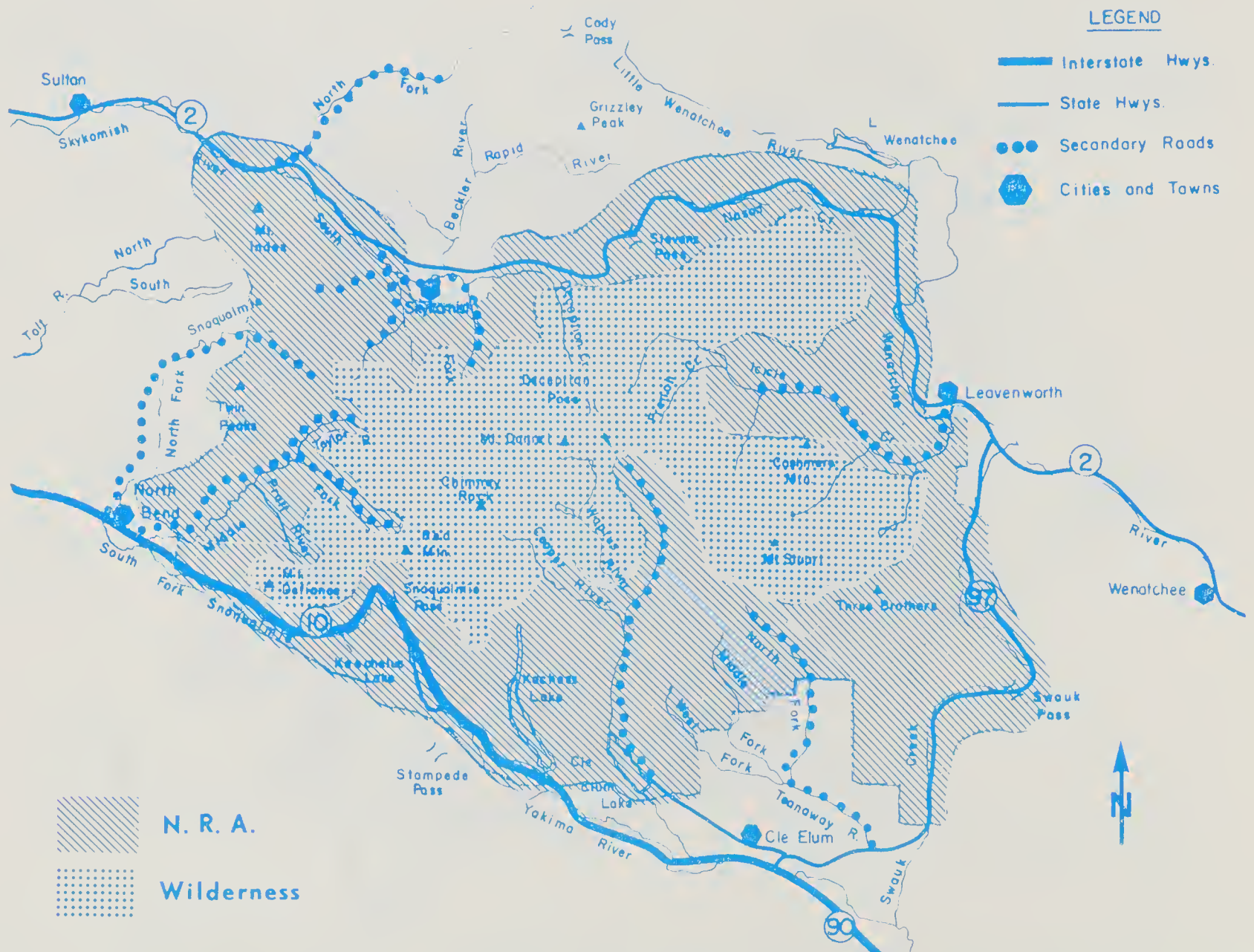


Analysis - The key recreational use concept is combined with two Wilderness proposals in this alternative. It would maximize the opportunity for a developed recreation experience while providing a small area within the core as Wilderness.



## ALTERNATIVE F

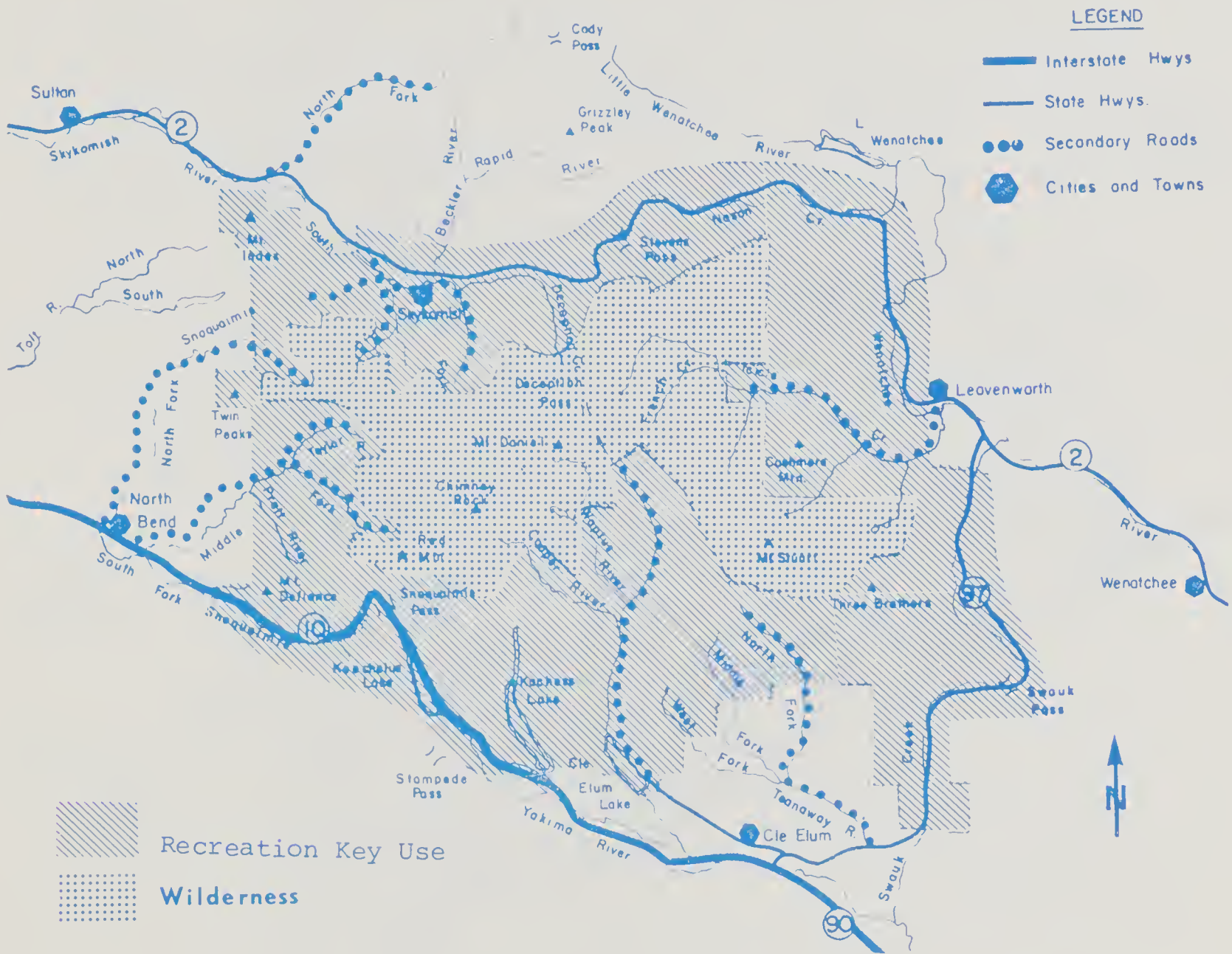
Description - An area of 926,000 acres managed as a National Recreation Area with one Wilderness totaling 365,000 acres in the core. Legislation has been proposed by the Alpine Lakes Protection Society for this alternative.



Analysis - Included in this alternative is the Mt. Si block of private land near North Bend which is outside of the National Forest boundary. Legislation which has been prepared by the Alpine Lakes Protection Society provides for the right of condemnation on all lands and a complete mineral withdrawal. Restrictions on timber management practices would result in more road development and the least amount of timber available for harvest annually. It introduces the concept of unit management with activities on peripheral lands influenced primarily by the need to protect the Wilderness values of the core.

## ALTERNATIVE G

Description - An area of 924,000 acres managed for key recreational use with one Wilderness totaling 285,000 acres in the core.

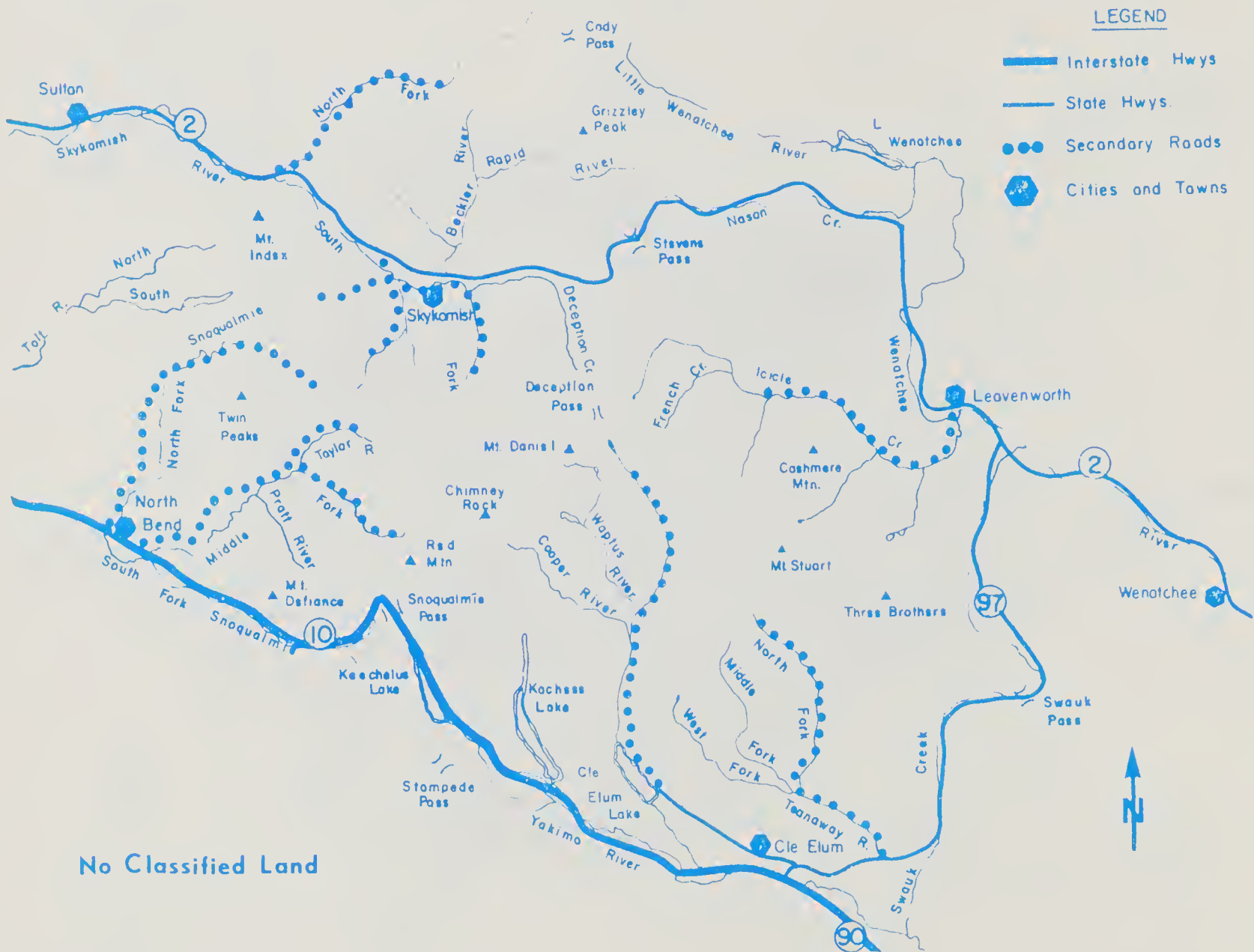


Analysis - This is the recommended action. The recreation key use area would include the community of Skykomish to assure continuity of management in the Stevens Pass highway corridor. Annual timber production would be higher than in alternative F (See Table III) because harvest practices would not be as restricted. Mineral entry would be allowed and condemnation of land is possible outside of designated Wilderness.



## ALTERNATIVE H

Description - No change in present management direction. This alternative represents continued management under present laws and regulations.



Analysis - No change in the management situation is proposed in this alternative. All National Forest lands in the study as defined in Section IB2 would continue to be managed under the existing laws and regulations.

## ANALYSIS OF ALTERNATIVES

The alternatives which have been described were all analyzed with respect to environmental, social, and economic considerations. This section will compare the impacts of each alternative upon each consideration and the elements which compose them. (See Table II for summary.)

### ENVIRONMENT.

#### *Wilderness*

All alternatives except H propose a Wilderness. Two Wildernesses (A, D, and E) involve less land being dedicated for this purpose than in those which propose one Wilderness. It is important to note that a corridor between two of these units, whether it be recreation oriented (D and E) or not (A), would increase the probability of compromising the Wilderness values of each unit. The corridor would be available for a variety of developmental actions to occur which would allow more access and hence more public pressure. By inclusion of this land in Wilderness, more protection of this resource can be assured.

#### *Fish & Wildlife*

Habitat protection is most enhanced with a larger Wilderness (B, F, and G) but the opportunity for man to manipulate this resource to increase fish and wildlife populations is reduced. As the protection of endangered species is already adequately considered in management plans no impact is expected because of classification except that more lands may be made available for this protection in the larger Wilderness (B, F, and G).

#### *Soil & Water*

Alternatives B, F, and G allow the most protection of the soil resource and water quality. Because the proposed legislation in alternative F would restrict the size of harvest units, more roads would be required and therefore more soil would be disturbed. The fact that many of these roads would be closed after use does not alter the impact they would have on soils and possibly on water quality. Alternatives D, E, F, and G would tend to increase recreation use and hence the possibility of decreased water quality.

Scenery

In alternative F, legislation would stipulate certain management practices to protect the scenery while all other alternatives propose to accomplish this by existing regulations and practices.

Resource  
Commitment

None of the alternatives propose an action which would cause an irreversible or irretreivable commitment of natural resources. With the exception of H which is a "status quo" alternative, they all propose land classification only. This should, in no way be interpreted as land development or the "locking up" of lands which would not be available for other uses at some future time. However, both short and long term losses will occur in commodities produced from renewable resources such as timber with this recommendation. The 6.8 million board feet of annual allowable harvest within the proposed Wilderness will be permanently lost to society each year that harvesting is not permitted. Forage is also produced continuously but the losses caused by Wilderness designation would be very small in terms of the livestock industry in the area. Losses in wildlife and water production would be limited to the additional production which may be attainable if appropriate developments and vegetative modifications were allowed.

SOCIETY.

Historic &  
Scientific

Alternatives B, F, and G offer the most opportunity to provide natural "controls" for the future study of the environment. Historic values can be most enhanced in alternatives E, F, and G. Archeologic values would be protected under existing laws and regulations in all alternatives.

Recreation  
Use

The recreation areas would increase the emphasis on management of the recreation resource. At the same time, more pressure would accrue because of the designation. The opportunity to construct new ski areas would be greatest in alternative H while expansion of existing facilities would remain open in all alternatives. Alternatives A, D, E, and H would leave the opportunity to construct new ski facilities in the Jack Creek - Van Epps areas open while other alternatives would deny this option.



Land  
Ownership

Authority over private land developments initiated by State and local governments would tend to have less short term impact upon the land owner than that imposed by federal law. Although State laws such as the Shorelines Management Act of 1971 offer a framework for the preparation of zoning guidelines, local governments appear reluctant to initiate controls over developments which would add new funds to the locality and in areas which do not appear to cause an impact on the majority of their clientele. Over the long run, regulations imposed by any governmental body will tend to restrict the freedom of the landowner.

ECONOMY.

Recreation

All alternatives but H may be expected to increase the economy of local communities with an added influx of people.

Timber

Alternative F would have the most adverse impact upon the forest products related economy while alternative H would have the least. A further analysis of this factor is presented in Table III.

Mining

Mineral entry would be withdrawn in alternative F. All other alternatives would not alter the possibilities for the removal of this resource, except that mineral entry will be closed in Wilderness in 1983.

Potential  
Water  
Development  
Projects

The various water development projects that have been or are currently being studied within this area are not preempted by any of these alternatives. If any of these potential projects become proposals, a project environmental analysis which satisfies the NEPA requirements will be made.

Alternatives A thru G which include Wilderness would preempt any potential water development projects that might be found feasible in the future within the proposed Wilderness unless permitted by the President.

Transportation  
& Utility  
Corridors

No increased investment in Federal and State highways is anticipated as a direct result of any of these alternatives. Alternatives D, E, F, and G, could result in an increase in Forest Service and County road investment as a result of increased visitor use and zoning standards.

Power transmission corridors established in the area will be managed under the principals of Environmental Criteria for Electric Transmission Systems under all alternatives.



# SUMMARY

TABLE I - AREA PROPOSED FOR CLASSIFICATION

Classification	Alternative							
	A	B	C	D	E	F	G	H
Wilderness	223,000	285,000	182,000	223,000	223,000	*365,000	285,000	-
NRA	-	-	-	-	-	926,000	-	-

TABLE II - SUMMARY OF ALTERNATIVES

## - Scale of Values -

Decreasing  
-5

No Change  
0

Increasing  
+5

Consideration	Alternative							
	A	B	C	D	E	F	G	H
<u>Environment</u>								
Wilderness	+2	+4	+2	+2	+2	+5	+4	0
Fish & Wildlife	0	0	0	0	0	0	0	0
Soil & Water	0	0	0	0	0	0	0	0
Scenery	0	0	0	0	0	0	0	0
<u>Society</u>								
Historic	0	0	0	+1	+2	+2	+2	0
Scientific	+1	+2	+1	+1	+1	+2	+2	0
Recreation Use	+2	+2	+2	+4	+5	+5	+5	0
Pvt. Ownership Influences	-1	-1	-1	-1	-1	-4	-1	0
<u>Economy</u>								
Recreation	+2	+2	+2	+4	+5	+5	+5	0
Timber	-1	-2	-1	-1	-1	-5	-2	0
Mining	0	0	0	0	0	-5	0	0
Water Dev.	0	0	0	0	0	0	0	0
Transportation	0	0	0	0	0	0	0	0

\* Wilderness included as integral part of NRA.

TABLE III - TIMBER

Alternative	Federal Lands				State and Private Lands
	Potential Annual Allowable Harvest (1)	Return To U.S. Treasury (4)	Return to Counties	Timber based Employment-Jobs (3)	Potential Average Annual Harvest (5)
	MMBF (2)				MMBF (2)
A	69.7	3,833,500	958,375	558	53.0
B	60.7	3,338,500	834,625	488	53.0
C	71.1	3,910,500	977,625	569	53.6
D	68.5	3,767,500	941,875	548	40.7
E	68.5	3,767,500	941,875	548	40.7
F	35.9	2,010,400	502,600	287	30.9
G	60.7	3,338,500	834,625	488	53.0
H	67.5	3,712,500	928,125	552	53.6

- (1) Potential Annual Allowable Harvest on National Forest lands within the area bounded, for the most part, by Snoqualmie Pass, Swauk Pass, and Stevens Pass Highways is the harvest that can be sustained from lands suitable for timber production and managed under current intensities with adjustments for developed recreation sites, critical soils, requirements for advanced logging techniques, and a modification of harvest practices in certain areas to protect the visual resource.
- (2) MMBF - Million Board Feet
- (3) Average annual timber based employment was developed using base year 1970 for logging, lumber, veneer, plywood, pulp mills, paper mills, paperboard mills and log exports.
- (4) Stumpage values calculated using an average of 1970, 1971, and 1972 values for sales in the study area.
- (5) This is the annual harvest that could be sustained if all commercial forest lands were managed for timber production on the basis of current management intensities.

VII. RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE OF LONG TERM PRODUCTIVITY.

This proposal creates an acceptable balance between the desirability and need to provide a natural Wilderness for future generations with the maintenance of a productive forest resource with the controls necessary to protect it for the long term needs of the country.

A natural ecological succession will continue to occur in the unique, fragile, and limited alpine resource association while representative portions of the upper and principal forest zones will be protected from development to provide a control for the future study and management of the various resources. All lands will be managed under the Multiple Use-Sustained Yield Act to provide the continued use of all resources for the future. Planned controls will assure the maximum protection of the land from the environmental damage so often associated with the unplanned actions of man. The enhancement of the recreation resource will provide man with more opportunity for leisure pursuits and enjoyment in the future.

VIII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES.

Both short-run and long-run losses will necessarily occur in commodities produced from renewable resources such as timber, forage, wildlife, and water. These products are produced continuously and if not harvested periodically, will be lost through old age or nonuse. Nonrenewable resources, such as minerals, will be available until extracted and then depleted permanently.

The proposed action is not inflexible. If the national need should change because of influences not now foreseen, the Congress has the option to alter the legislative boundaries to more nearly meet the requirements of the future. But the boundaries as now proposed will assure the protection of those resources known and unknown so that the option to use them will always remain.



## IX. CONSULTATION WITH OTHERS.

### A. PUBLIC RESPONSE.

Public involvement began with the reanalysis of all the letters received by the two Forests pertaining to the undeveloped lands within this study as initiated by the roadless area review. A brochure explaining the study was published in July 1972 and copies sent to interested parties so that they would have the opportunity to examine the area prior to submitting their response. In January 1973 public meetings were held to present the Forest Service alternatives, and mass publicity was given through the newspapers, radio, and television. Over 4,700 individual responses were received. An analysis of these responses and what they said is contained in the APPENDIX of this report.

### B. INTERESTED ORGANIZATIONS.

Information gathered and proposals made by the timber industry and major landowners (Central Washington Cascades Study Team), The Alpine Lakes Protection Society, and the North Cascades Conservation Council were studied in detail in the development of the Forest Service alternatives. Other recommendations were received during the public response phase and these were given due consideration in the proposal preparation.

Comments are requested from the following groups.

Alpine Lakes Protection Society  
Central Washington Cascades Study Team  
Mazamas  
Mountaineers, Inc.  
North Cascades Conservation Council  
Sierra Club  
Federation of Western Outdoor Clubs  
Washington Environmental Council, Inc.  
American Forestry Association  
North American Wildlife Foundation  
Northwest Steelheaders-Trout Unltd.  
Society of American Foresters  
Society for Range Management  
Washington Cattlemen's Assn.

Washington Wool Growers' Assn.  
Washington State Sportmen's Council  
Wilderness Society  
Washington State University  
University of Washington  
Northwest Mining Association  
Industrial Forestry Association  
American Forest Institute  
Western Wood Products Association  
Northwest Timber Association  
Washington Forest Protection Association  
Western Forest Industries Association  
Sierra Club Legal Defense Fund, Inc.

C. FEDERAL, STATE, AND LOCAL AGENCIES.

Comments are requested from the following agencies:

Federal

Advisory Council on Historic Preservation  
Agriculture Stabilization and Conservation Service  
Soil Conservation Service - State Conservationist (Wash.)  
Department of Commerce - Economic Development Admin.  
Department of Army - Corps of Engineers  
Director Environmental Protection Agency - Region X  
Federal Power Commission  
Department of Health, Education, and Welfare  
Department of Housing and Urban Development  
Department of Interior  
Department of Transportation  
Office of Economic Opportunity  
Pacific Northwest River Basins Commission

State

Office of Program Planning and Fiscal Management (Wash. Clearinghouse)  
Washington Congressional Delegation  
Governor of Washington  
Governor's Wilderness Task Force  
Parks and Recreation Commission

County

Washington Association of Counties

Board of County Commissioners, Chelan County

Board of County Commissioners, King County

Board of County Commissioners, Kittitas County

Board of County Commissioners, Snohomish County



## APPENDIX



ALPINE LAKES  
SUMMARY - PUBLIC RESPONSE ANALYSIS

This summary highlights the salient features of the content of 4,690 written inputs representing 5,380 people.

The information obtained from the written responses is in the form of general and specific opinion on land allocation and management in terms of issues and areas.

The method used in this analysis was the Codinvolve System developed in 1972 by Roger N. Clark and John Hendee, PNW Forest and Range Experiment Station, Seattle, Washington and George Stankey, Intermountain Experiment Station. The Codinvolve System, basically a method of coding and classifying written inputs with provisions for retrieval, was adapted to the Alpine Lakes Study.

About one half of the 4,690 inputs were generated by individual action; these were in the form of personal letters and tear forms from the booklet, Alpine Lakes Land Use Alternatives. The remaining one half were generated by organized action. These inputs were predominantly form letters but included petitions and reports.

Forty percent of the inputs could be identified as coming from urban areas and 26 percent were rural. This represents a good balance of urban and rural responses.

About 60 percent of the personal letters came from the South Puget Sound region while about 60 percent of the form letters came from North and South Central Washington.

The major goals of the public involvement process were to find out how people felt about the three Forest Service alternatives presented in January 1973 in the booklet, Alpine Lakes Land Use Alternatives, and to determine preference for modification, combination, or substitution of alternatives.

Only 439 people gave blanket endorsement to a Forest Service alternative. The remainder may have shown a preference but suggested some modification.

Of those people who elected to make a preference, 711 people chose Alternative A as opposed to 682 for Alternative B. Alternative C had considerably less support. Forty-five percent of Alternative A's support was in terms of form letters.

The Alpine Lakes Protection Society drew the most support as a citizen's proposal representing 532 signatures. The ALPS proposal, in combination with other citizen's group proposals espousing a larger Wilderness than Forest Service alternatives, received more support than Alternative A.

In addition to response on Forest Service alternatives and citizen group proposals, other recommendations for the allocation of land within the Alpine Lakes area were advanced. Of the 2016 inputs with other recommendations, the dominant proposal was to modify Forest Service Alternative A to conform with the Central Washington Cascades Study Team plan. This recommendation, supported by 1,780 inputs - mostly form letters - represents the major preference in terms of number of respondents.

In reviewing the response to three Forest Service alternatives, two conclusions stand out:

1. Those respondents who could be identified as forest industry-oriented voiced their sentiment about Alternative A in terms of less classification and the two-wilderness concept.
2. When reviewing the three alternatives in the absence of form letters, a trend becomes rather clear. The sentiment is for more Wilderness and less back-country with a buffer of some kind.

In addition to sentiment on the alternatives, many comments were received on general land allocation issues.

Of the 837 inputs addressed to the question of more Wilderness, 68 percent favored same.

Back-country was rejected by both Forest Industry and Preservationists. Of the 339 inputs addressed to this question, 67 percent were against back-country. The timber industry rejected back-country because it is a single use classification. Preservationists rejected back-country because it lacks statutory protection.

The idea of a National Recreation Area drew a large response from industry in opposition because it would restrict timber harvest. This response was predominantly in terms of 1,253 form letters.

Three special issues, Statutory Protection, Purity in Classification, and Buffer Zones, were discussed most often by preservationists. The theme most often voiced by those who find Forest Service alternatives inadequate are included in these three issues. That is, the suggested back-country designation lacks statutory protection; not enough lowland valleys (though sometimes trammled) were included in Wilderness; and no buffering of the Wilderness was included.



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